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All Scientific Papers submitted for Publication must be Typewritten.
Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

JANUARY, 1905.

THE NEXT A. M. A. MEETING.

The next meeting of the A. M. A. will be held at Portland, Oregon, July 11-14, 1905. Applications for membership may be secured at the office of the Society, Room 1, Y. M. C. A. Building, San Francisco.

EDITORIAL NOTES.

ANOTHER NEW YEAR.

The JOURNAL enters upon its third year of life with hope and confidence and is cheerful of the future. We speak of it in this personal sense for to your Publication Committee the JOURNAL seems a living, growing entity; our child. The condition of the Society is excellent; county societies, almost without exception, are in a flourishing condition and are growing at a healthy rate. A number of counties where no societies now exist are ready for organization. On every important question confronting the medical profession of California, there is harmonious agreement. Judging from the kindly expressions of opinion that come to us from every county society and from individuals in all parts of the country, the JOURNAL'S policy in regard to not only a passive but an active part in the fight for clean advertising, is heartily approved. In the coming year we shall strive to make your JOURNAL more useful to you than it has been and we will highly appreciate any suggestions that seem to you good. We will in no way depart from the now well-established policy governing the advertising pages; if anything, more care will be exercised in considering advertisements submitted and in applying those rules which have been adopted and which are based upon the Principles of Ethics of the American Medical Association. We sincerely wish to every reader of the JOURNAL, a happy and a prosperous New Year.

AN ANSWER TO A QUESTION.

The question propounded was this: Is a doctor "who is giving the treatment [a quack "drunk cure"] knowing it to be a secret form of treatment, i. e., administering drugs the nature of which he is ignorant, eligible to membership in an affiliated society of the American Medical Association, a county society, for example?" The answer as given by the *Journal A. M. A.*, in a recent issue, is as follows: "Not if the members of the county society to which he applies do their duty to themselves and to the profession." Certainly nothing could be more explicit nor more in conformity with the Principles of Medical Ethics promulgated by the American Medical Association. But will the gentleman who so wisely answered the query of the *Journal's* correspondent kindly point out wherein is the difference between the hypothetical man who is thus to be excluded from membership, and the men who make use of some twenty-five secret remedies "promoted" through the advertising pages of the *Journal* itself? It may be replied that the formulas of these are published, meaning thereby that a *qualitative* "formula" is published. If memory serves, the once famous Dr. Keeley announced that his remedy contained gold, and under such a lax ruling it should be considered ethical. Is it so considered by the gentleman who answered the query?

TUBERCULOSIS SANATORIA.

A question which should receive the careful consideration of all members of the Society, and their thoughtful expression, is the proposed establishment of State sanatoria for the tuberculous poor. That much good has resulted from the tuberculosis crusade of the past few years, is conceded; that very much remains to be done, goes without argument; that something should be undertaken by the State, appears to be the general opinion. What direction shall State or municipal aid take? Shall it be outpatient dispensaries, or shall it be sanatoria, or both? Judging from the general tone of discussion, not only here in California but in other parts of the United States, both projects are considered desirable and necessary. But the undertaking is large and important and whatever is done should be done carefully and understandingly, and with the approval and cooperation of the Tuberculosis Committee of the State Society. Such institutions should be absolutely free from any possibility of political influence or they will be worse than none at all. In life-taking it has been said

that it is the man behind the gun that counts; so, too, in life-saving, the general opinion seems to be that it is the man behind the sanatorium that counts more than climate, location, or anything else. In this country the question of State sanatoria for the tuberculous poor is a comparatively new one and a few such institutions have been in existence for a short time. Yet even in this short time, so it is pretty noisily rumored, scandal and graft have crept in. This is almost certain to be the case if such institutions are open to political manipulation. A prominent senator of the United States once said to a member of our profession, "The physicians of this country can secure any legislation they want, *if they only agree upon exactly what they want.*" Let us first be very careful to agree upon exactly what is wanted, and then proceed to secure it. Think the matter over carefully and be prepared to express your views.

JUST KEEP HAMMERING.

During the past few months the JOURNAL has devoted considerable space to editorial discussion of the advertising question and to occasional criticism of the A. M. A., or rather of its Trustees, in connection with that important subject. It is possible that at times this may be a little monotonous to some of our readers; at times it is somewhat tiresome even to the Publication Committee. But we must crave your indulgence yet a little while. An official of the American Medical Association, who has gone over the ground very carefully, said to a member of the Committee; "You are unquestionably right, and you are doing the only thing that can possibly bring results; you are constantly hammering. Keep it up, for if you stop and the subject is dropped, it will sink into oblivion. Keep hammering and you will see that the question will have to be taken up and settled right." For that reason we shall "keep hammering." A careful review of what has been published discloses nothing that is not well within the truth; we have no word to retract or to modify in our criticism of the mal-administration, ethically speaking, of the A. M. A. Indeed, the utterances of the JOURNAL have been milder, if anything, than the facts warranted: there is documentary evidence which would support it in publishing much more direct and unpleasant statements. But your Committee desires to publish rather less than more of the unpleasant truth, than is absolutely necessary.

VACCINATION FOOLISHNESS.

There seems reason to believe that some of the weaker minded and highly hysterical citizens of California will endeavor to have a bill introduced into the legislature repealing the compulsory vaccination act. This class of pestiferous idiot is so microcephalic that it is practically impossible to get sense into his head; he must therefore be regarded as beyond the sphere of useful reason and our efforts to prevent his bringing disaster upon California must be thwarted by direct appeal to the legislators themselves. Practically every county society in the State has passed resolutions objecting to the repeal of this wise law. It would be an excellent thing for individual members to write to the legislators and express their views on this subject, remembering that it is impossible to bring too much influence to bear. It is safe to say that the repeal of the law would, in the course of time, cost the State of California millions of dollars, to say nothing of the death of many innocent persons. If the pest could be so controlled as to exercise only a selective affinity for those who oppose vaccination, it might be well to encourage it and thus be of practical aid to the fool-killer. As we cannot help in that way, the best we can do is to keep both eyes wide open, and at least one of them fixed on the legislature.

FORCED TO DO RIGHT.

Your attention is respectfully called to the peculiar and particularly significant wording of a portion of a letter printed in the last number of the JOURNAL. "If you can .... force the Trustees of the A. M. A. to adopt a policy of ethical decency in the conduct of the Association *Journal*, etc." Think of it! If our State Society can—what? Compel, merely by printing a little of the truth—for we have by no means said all that could be said—compel a body of such honorable men as compose the Board of Trustees of the American Medical Association to do—what? Anything wrong or dishonorable? No, just the opposite. Think of it. Let it sink into your mind and realize just what that means. Think that such men as Drs. Happel, Grant, Marvel, Montgomery, Johnson, Wright, Welch, Porter, and Harris, our servants to whom we have delegated the conduct of the Association and its *Journal*, must be forced to do the right thing; that a component society must fight to compel these gentlemen to do only their plain duty. Why, one would imagine that wild horses or the torture of the sharpened stake could not induce them to do otherwise. It is impossible to believe that these gentlemen would, as individuals, dream of doing the things that they are doing as a board. Are they crazed with the gold lust? Are they indifferent to the result that must follow upon the course they are leading the *Journal of the American Medical Association?* Are they blind to the fact that they are making the Principles of Medical Ethics promulgated by the American Medical Association a ludicrous thing? Has any one of these gentlemen the courage to come out and say that he believes for one instant that he would not be "promoting the use of a secret remedy," if he endorsed the following statement taken from the advertising pages of the *Journal* whose business it is his to guide and guard: "Destroy the gonococcus by internal medication .... the perfect genito-urinary disinfectant. Benolgur cap-

sules .... containing the active principles of gum benzoin and of the essential oil of gurjun." From this who can tell what the stuff contains and in what amounts? Is there a pathologist in the country who could be found to endorse the statement that it is a "perfect genito-urinary disinfectant"? Gentlemen of the Trustees, are the few dirty dollars which the Association receives for this advertisement an equivalent for the loss of dignity, honor and prestige which results from the spectacle of the great American Medical Association advertising and promoting the use of such nostrums?

PROGRAM OUTLINED.

The Committee on Scientific Program for the next meeting of the State Society at Riverside April 18th to 20th, has pretty well blocked out the work. The three mornings of the session will be devoted to general symposiums. One morning will be given up to subjects of a general sanitary nature, as the report of the Committee on Tuberculosis with corelated papers, Medical Education and Legislation, the milk question, etc. Another morning will be given to a discussion of the Gallbladder and Ducts, divided into four general divisions; Diagnosis, Pathology, Medical Treatment and Surgical Treatment. The third morning will be occupied by a symposium on Typhoid Fever, the subject being divided as follows: Etiology and Epidemiology; Paratyphoid; Surgery, (a) Immediate, and (b) Secondary; Genito-Urinary Complications; Treatment. Some of the papers and opening discussions on these subjects will be provided for by the Committee, but it is desired to have a few additional papers. The Committee therefore requests that *members who desire to present papers on any of the subjects covered in these symposiums will kindly send in their names and the titles of their prospective papers, at once.* They must be received *not later than February 1st* in order to be considered, for otherwise the program will be filled by the Committee. Two of the afternoons will be devoted to papers on the various special subjects, Surgery, Medicine, Obstetrics, Gynecology, Genito-Urinary Diseases, Pediatrics, Eye, Ear, Nose and Throat Diseases, Dermatology, etc. A few papers will be asked for by the Committee, but it is expected that most of them will be volunteered. All members desiring or intending to present papers are requested to *send in their names and the titles of their papers at once, or the program will be filled.* This information should reach the Committee not later than February 1st. It is announced that the program will be more limited in the number of papers than in previous years, so that all may be presented, and each author will be required to state the amount of time his paper will take (which may not exceed twenty minutes), and will be strictly held to that time limit. From present indications, the Riverside meeting will be one of the best in the history of the Society and it certainly promises to be one which those who attend will long remember.

THE PITY OF IT ALL.

The *British Medical Journal* with its issue for November 12th, publishes a supplement illustrating the full Japanese soldier's outfit; it also has a long and very interesting editorial on the subject. We cannot refrain from extracting some sentences from this editorial comment. "It is difficult to know whether to admire most the thoroughness or the ingenuity with which the health and comfort of the men serving in a country which is in summer very hot and in winter very cold have been considered." "But the excellence of the clothing served out and its perfect adaption to the climatic conditions to be encountered is only one instance of the wise forethought displayed by those who are responsible for the health of the Japanese soldier in war and for his care when wounded." In reading the description of the outfit one is struck with the emphasis placed upon "the excellent quality of the material used." And there is the pity of it! That one should be *surprised* because the very best material is used in fabricating the clothing for the common soldier—the man at the front. Contrast the downright honesty of the Japanese commissariat, the fine wool blankets combining warmth with lightness; the lamb's wool toe socks for extreme cold weather; the beautifully woven underwear; the rice and other foodstuffs, of which only the best is accepted: compare these with our own embalmed beef, our actually rotten and rotting tinned pork and beans, our poor shoddy cloth, our glove scandal, the thousand and one instances of "graft, graft, graft." The existence of surprise is indicative of a widespread demoralization that is appalling in its tragic significance. So accustomed are we to corruption that simple honesty excites our surprise; graft we look upon as naturally to be expected.

NASTY FRAUD.

Some months ago the JOURNAL published an editorial with this caption. It referred to a manufacturing concern that put out a preparation and published a lieing formula. At first they said it contained "lithium methaminate", and when we found that this was simply an outrageous insult to one's intelligence, that there is no such chemical, we mentioned the fact editorially and expressed our views on the standing of a concern that would do such a thing. The advertisement with the absurd "formula" was appearing in the *Journal of the A. M. A.* also, and when this matter came out the "formula" was dropped; but the *Journal* continued to print the advertisement. For some months the "ad" was run without any formula, but in a recent issue of the *Journal* we note that a new "formula" has made its appearance. This time the same identical name is used for the stuff

—uriseptin—but it is said to contain "Lithium Comp. with amido-formaldehyd". On inquiry we are advised that this is quite as meaningless to the chemist and pharmacist as was the imaginary chemical first given as entering into the composition of the "remedy" (Heaven save the mark—a remedy!) in question. We are assured by the Chairman of the Board of Trustees of the A. M. A. that a verified formula is filed with the copy for each and every advertisement of a proprietary mixture. If that is the case it is certainly imperative that the Trustees discharge the person who "verified" the formulas which this concern is filing with the Association. It is ludicrous, or would be if it were not so pitifully undignified, to see the great American Medical Association so carried away with "frenzied finance" that it must needs sell the Association's birthright for a mess of pottage!

REGISTRATION OF NURSES.

The California State Nurses Association has had prepared a bill which is to be introduced in the legislature, providing for registration of graduate and qualified nurses. The text of the bill has been submitted to a number of attorneys and prominent physicians and has received their approval. At the December meeting of the San Francisco County Medical Society the matter was presented and a resolution passed endorsing the proposed law. This certainly seems to be an excellent and progressive measure. At the last meeting of the British Association similar action was taken and a resolution prevailed recommending to Parliament that the Nurses Registration Act be passed. Any measure that tends to elevate or improve the standards of any profession should receive the approval and the endorsement of those in other professions, for what aids one, aids the others. The JOURNAL is very glad to note this action and certainly wishes the nurses every success in their efforts.

DANGER FROM OUR FRIENDS

The general condition of harmony in the medical profession on the subject of "hands off" the medical law, is very encouraging. It looks, at the present writing, as though enemies of the law as it is, will have a well nigh impossible task if they undertake to amend it to its detriment. But there is one danger that must be recognized and guarded against—"improvements" that may be suggested by gentlemen who may be undoubtedly honest in their mistaken motives. We are advised that a letter has been written to a member of the Board of Examiners asking the endorsement of the board on a proposed amendment to the law, striking out the words "in discharge of his professional duties," refering to medical officers of the Army and Navy and Marine Hospital Services. At present these gentlemen cannot legally practice outside of their official work unless they comply with the laws of the State in which they are located. The matter was called to the attention of the Surgeon General who advised the board that medical officers were so instructed, and that the matter would naturally come before the local courts. There are very many reasons why this amendment should not be even suggested, let alone enacted. In the first place it would endanger the constitutionality of the whole act, for it would be special legislation. It would allow these very estimable officers to seriously effect the practices of men who have complied with the law. If these medical officers are desirous of practicing in California, and if they are competent, let them take the examination before the Board of Examiners and get a license just the same as anybody else. This is the most vicious proposed amendment that has come to our attention; kill it promptly and bury it deep.

"MY SON, MAKE MONEY; HONESTLY, IF YOU CAN, BUT—MAKE MONEY."

Let us once more glance at the financial statement made by the Trustees of the A. M. A. at the last meeting and see whether further understanding may have come from reflection. In August the STATE JOURNAL criticised the financial statement; we disagreed with the Trustees in crediting the profit of the Association (some $38,000) to the *Journal*, and asserted that this profit should properly be credited to members' dues and was the remainder after paying from the dues collected the expenses of the Association and some $14,000 to the *Journal* account. We also called the attention of the Trustees to the fact that the Association *Journal* was not being conducted in a very ethical manner, and that it openly violated those ethical principles which have been promulgated by the Association for the guidance of physicians.

To these words of criticism the Chairman of the Board of Trustees took exception. His letter in reply to them was printed in the November *Journal*, and after reading carefully his letter, it would seem that Dr. Happel has clearly demonstrated the truth of our original contention. For the time being the portion of the correspondence relating to the quality of advertising in the A. M. A. *Journal* will not be discussed, except to say that up to the present time the Trustees have not published a statement, as we requested, setting forth when and where the formulas we mentioned were published in the pages of the *Journal*.

On page 329 of the November *Journal* Dr. Happel says:

> "I am surprised that you will attempt to make your readers believe that the "dues" is no part of the *Journal* income. You do not appear to be aware of the fact that the $63,237.48 entered as membership dues is the amount paid by members of the association as subscribers to the *Journal*, receiving the *Journal* by virtue of paying their membership fees of $5.00 each year and that for 1903 the above amount of $63,237.48 was collected."

While the above quotation is a little confused, Dr. Happel appears to be trying to make the dues appear as subscriptions to the *Journal*. If this were true, all subscribers might claim membership, for they could claim that membership cost nothing and was a sort of premium attached to subscription. As a matter of fact, the reverse is the case; membership costs $5 a year, and the *Journal* is sent as a part of the benefit attaching to such membership. Quite naturally a portion of the membership fee should be paid over to the *Journal* to cover the cost of sending the publication to each member; let us see what this amount is: The report states that $63,237.48 was received from members' dues, less collections. It also states that the Association expenses, aside from publication expenses, amounted to approximately $11,000, which amount is properly chargeable to the

receipts from members, leaving, in round numbers, $52,000 as the net income from the Association revenues derived from dues. Dr. Happel states, both in the report and in his letter, that the net income of the Association, including all receipts and all expenses, was, roughly $38,000; this amount is $14,000 less than the net income from dues, so it seems to be apparent that the cost of sending the *Journal* to the members amounted to about $14,000. Thus we learn that of the $5 which each member pays each year, about twenty-five cents is required for Association general expenses, $1.10 for the cost of sending him the *Journal*, and $3.65 is invested in Chicago real estate, school bonds, etc.

Dr. Happel also says, in the same communication:

"With a profit of $38,000.00 and an income of $88,000.00 from advertising (using round numbers) where would the *Journal* have been without the advertisements? The answer is (for fear you will not give it to your readers) $50,000.00 on the debit side of the ledger."

Now let us see whether, on analysis, this is found to conform to the facts as given in the report. We did not suggest that the *Journal* cut off all its advertising; that would be extremely foolish, for about two-thirds of it is perfectly ethical, and doubtless most of the other third could be made so or its place supplied by other advertising that would be decent. But let us, for the sake of argument, consider the Association as publishing a journal without advertising, as suggested by Dr. Happel, and see whether it would result, as he suggests, in a deficit to the Association of $50,000. The revenue of the Association would be; first, $63,237.48 from dues, for it seems safe to assume that members do not become such because of the advertising pages of the *Journal*. It would also seem safe to assume that subscribers do not subscribe to the *Journal* for the single purpose of reading the advertising pages; so we may add $52,567.38 in subscriptions. The rent from Association property and the interest on bonds are not dependent upon advertising, so we have $2,745 more. Let us summarize:

Dues	$63,237.48
Subscriptions	52,567.38
Other income	2,745.00
Net income	$118,549.86

Thus we see that, with no advertising income whatever, the Association would receive $118,549.86 annually. Now let us examine the expenses. In the report, the publication expenses are given as $166,529.13. At first glance this seems to substantiate Dr. Happel's contention. But let us see. The *Journal*, for the last six or eight months, averages about one-half advertising pages, and, of course, if these are cut off the expense attached to them is also cut off. This reduction would not amount to one-half, for it costs a little more to print the reading pages than the advertising pages; it would probably be about two-fifths reduction, or $62,611.66 (about), leaving the cost of publication $103,917.47. To this must be added Association expenses, about $11,000.

Income	$118,549.86
Expense	114,917.47
Net income	$ 3,632.39

Apparently, even with no advertising pages, the Association would not be $50,000 in debt, as suggested by Dr. Happel. But let us add, as income, two-thirds of the advertising receipts and charge to expense two-thirds of the amount which we reduced the expense account in the report. We have:

Income	$177,212.52
Expense	156,658.57
Net income	$ 20,553.95

It is difficult to see, from the figures which the Trustees give, why it would not be possible for them to conduct the *Journal* in accordance with the Principles of Ethics, do all the work the Association is now doing, and still make money. And the dollars thus made would be good, clean, wholesome dollars, without taint or stench. It is true that the reserve fund would grow more slowly, but it would grow, and in the end be a monument to good business sense as well as to good ethics, instead of being an apparent illustration that the accumulation of wealth will counterbalance disregard of ethical principles.

THE PREVENTION OF TUBERCULOSIS.*

By GEORGE H. EVANS, M. D., San Francisco.

THE FACT that tuberculosis is a preventable disease once appreciated, this subject becomes one, the importance of which cannot be overestimated by the medical profession, for upon it must devolve the responsibility of contesting each step in the onward march of this scourge, which is responsible for the death of more than one ninth of the human race. It would be unprofitable to present statistical matter at this time, tending to show the decrease in the prevalence of tuberculosis in certain countries proportional with the agitation of preventive measures, suggestive as these figures are; because in the time allotted to this paper I wish to present some suggestions for your serious consideration, as to what should be done in the community looking toward the prevention of the spread of this disease. We, as a profession, have been guilty of much lethargy in this respect, and in our efforts toward the tuberculous sick have overlooked to a greater extent than we should the duty we owe to the well. And our indifference in this respect becomes the more reprehensible when we realize that this disease, which causes so much suffering and death at the most productive period of life, could be very largely obviated at comparatively small cost; so that this subject appeals to us, not only as physicians and humanitarians, but it assumes sociologic aspects which cannot be ignored. Tuberculosis is pre-eminently a disease of the young and middle aged, and if anything can be done to stem the flood of its ravages, the state reaps rewards which are alone of sufficient importance to justify action.

The problem of the prevention of tuberculosis is intimately interwoven with the attitude we take regarding its communicability. The profession is unfortunately divided as to whether this disease should be considered a communicable one or one that is contagious in the ordinary acceptation of the term; that is, as diphtheria is said to be contagious. This question is one of great importance, for upon its solution must rest the proper disposition of the tuberculous patient.

One who has had experience in tuberculosis hospitals, and has noted the rarity with which attendants contract the disease, notwithstanding the carelessness oftentimes displayed, must realize that the degree to which it is communicable is slight. While we must admit that such contact renders it possible for the disease to be thus propagated, I maintain that in the proper disposition of the sputum this danger can be overcome. This being the case, it is theoretically an easy matter to prevent the spread of the disease through the medium of the tuberculous patient. Difficulties confront us, however, in the practical application of measures looking toward this end, and it is these difficulties which it becomes our duty to surmount.

The tuberculous patient must be taught the proper disposition of his sputum, and the public must be awakened to the necessity of insisting that his obligation to society be fulfilled. This must precede legislation if the latter is to be made effective. That this is so can be daily attested by the filthy condition of our pavements, and the thousands of sputum-bedraggled skirts that sweep them, notwithstanding the existence of an anti-spitting ordinance on our statute books. When one views such exhibitions in a large

*Read before the San Francisco County Medical Society, August, 1904.

city, with the death rate from tuberculosis as high as 32 per 10,000 population, according to the figures in the State Tuberculosis Committee's Report, he is impressed with the fact that not much is being done toward the prevention of the disease. The tuberculous patient must be reached, not first by anti-spitting ordinances, and arbitrary and compulsory requirements of registration, but by the irresistible weight of public opinion, awakened to a realizing sense of its danger, and to a knowledge of the benefits it can bestow.

Some concerted action should be taken whereby the laity could be interested, and this can be done only through the formation of local organizations in the several communities; such organizations as the "Anti-Tuberculosis League" of Southern California, the "Boston Association for the Relief and Control of Tuberculosis," the "Scranton (Pa.) Society for the Prevention and Cure of Consumption," and many others that are doing good work both in this country and abroad. The first object of such an organization should be to instruct the laity, by means of lectures, pamphlets and the judicious use of the press, that the disease is preventable, that the tuberculous patient is dangerous to the community only in so far as he allows his bacillary sputum to be disseminated. The fear of this disease which has been created in the mind of the public is working untold hardships to these unfortunate patients, and it is only by such a campaign of education that this fear can be overcome, and intelligent preventive measures take the place of the prevailing ignorance and dread. The medical profession has been responsible for the present attitude of the laity which has reached that condition well termed "phthisiophobia," where, in Southern California, for instance, the tuberculous are denied admission to hotels and boarding houses. Not only are such measures impossible of enforcement, but they are unnecessary and inhumane. This is shown by the Tuberculosis Committee's mortality figures; for in Los Angeles, a tourist city, well filled with imported cases, the mortality rate per 10,000 inhabitants is 39, while that for San Francisco, a city which imports proportionally a much smaller number of cases, is 32. These figures are significant, and probably present the best argument against the policy of isolation and quarantine so hysterically urged in certain quarters, for were the disease as contagious as some would believe, the mortality rate for Los Angeles would be much higher.

In placing the education of the public first among preventive measures I do not wish to minimize the necessity for ordinances which will enforce these measures; but ordinances are not enforced unless backed by public opiuion. With the weight of this influence behind them they become valuable measures. An anti-spittiug ordinance should be enacted and enforced which would prohibit spitting on the sidewalks and also in the streets, for to allow the latter, particularly in a city with the high winds and the system of street sweeping which prevail in San Francisco, is merely to defeat the purposes of the ordinance. To make such an ordinance possible of enforcement, however, spittoons must be provided and plentifully distributed along the principal thoroughfares aud in public buildings, which spittoons should be properly disinfected.

Notification of all cases of pulmonary tuberculosis should be compulsory, and such premises should be inspected, and the inmates instructed in matters of hygiene and disinfection. In this way a great many unsanitary dwelliugs would be renovated and defective plumbing repaired. The health board should take charge of the thorough disinfection of the premises when a tuberculous patient moves away or dies. This disinfection should be most complete in all its details, and should consist in not only the use of formalin, but mechanical cleaning by means of painting and paper-hanging at the landlord's expense, before the premises are again occupied. Great danger arises lest the public be frightened by notification of cases to the board of health, and it should be carefully explaiued that in no way does this mean quarantine. The public does not take kindly to quarantiue of any sort, and the anticipation of the placard on the door, to the average individual, is oftentimes more painful than the existence of the disease within. The board of health should also institute a systematic inspection of the workshop, such a frequent source of infection. These places should be light and clean; the method of removing dust should be dictated by the board, and the cubic space of air for each individual should be prescribed by law and rigidly enforced. A tuberculosis society, such as I have briefly outlined above, working in harmony with the board of health, can render these measures effective.

There should be a systematic and thorough inspection of the public schools, for we know that herein lies an important medium for the dissemination of the disease, because of over-crowding, and the large number of recognized cases of early tuberculosis among both teachers and scholars. It is exceedingly difficult to reach this source of infection. Any effort looking toward compulsory examination of coughing children would be interpreted as an infringement of the rights of the individual, and the family physician does not take kindly to such inspection by representatives of the health board or board of education, and with some reason, for too often the inspector illegitimately attempts to develop his own practice through this means. Much could be done, however, to improve the hygienic condition of school buildings, and to prevent overcrowding; but the elimination of the danger from the tuberculous child and teacher will only come through a better understanding by the public of the conditions of the individual as they effect the spread of the disease. Hygiene should be more thoroughly taught in our public schools, and it should be taught by medical men who hold such positions by reason of scientific attainment rather than by political preferment.

The care of the ambulatory tuberculous poor should receive our earnest consideration. Through the energy of anti-tuberculosis societies, funds should be raised for the equipment and maintenance of dispensaries for the treatment of these patients. This work has been taken up in Philadelphia under the direction of the Henry Phipps Institute; in New York by the Vanderbilt Clinic; in Scranton, Pa., by the Scranton Society for the Prevention and Cure of Consumption, as well as in several other cities in this country and abroad. There can be no question that this class are particularly dangerous individuals to the community. It is composed largely of the bread-winners of the poor, who do not seek the advice of a physician for the cough which has been present for weeks or months; and thus unrecognized, the malady progresses until emaciation, night-sweats, fever and weakness force the victim to seek medical aid, only when the disease has reached an advanced and hopeless stage. Such dispensaries should be situated among the populous districts, and should be equipped with a waiting room, a consulting room in which careful histories of all applicants are taken, examining rooms, a laboratory, and a dark-room for laryngoscopic work. These patients, in addition to appropriate medical treatment, should be carefully instructed by the dispensary physicians regarding hygienic living, and urged to be in the open air as much as possible. Paper sputum-cups should be provided them, and careful instructions given regarding the proper disposition of the sputum, and the danger of carelessness in this respect. A careful diet list should be given. The so-

ciety should have a corps of visiting nurses, whose duty it should be to visit the homes of these patients, there instruct them in matters of ventilation and cleanliness, and report the condition of each home, so that if necessary the society could furnish food and other necessities. These are but a few of the functions of such dispensaries, and of course mean some expenditure of money. But from an economic standpoint the expense would be justifiable. Tuberculosis reaps its greatest harvest among the productive members of society at a time when each life has a distinct money value to the community as well as to his dependents. This value has been fixed by statute in several states, and varies from $5,000 to $10,000. Assuming the lowest figures to be a fair estimate here, the mortality rate will reveal figures which are truly startling. In June there were 66 deaths from pulmonary tuberculosis in San Francisco, and of this number 54 were between the ages of 20 and 50 years. Assuming this to be an average monthly mortality, it would make the annual number of deaths between these ages 648, or a money loss to the state of $3,240,000 through the deaths in San Francisco alone. Twist these figures how you will, the loss from preventable deaths is such as to justify more effort than is now being made to save these individuals.

Provisions should be made for the proper care of incurable, helpless cases of tuberculosis, in hospitals equipped for them. It is in these cases that preventive measures are most difficult of attainment, and isolation here becomes a necessity. These patients are helpless, and it is impossible to prevent soiling of bed linen, clothing etc., with the tuberculous material expectorated. In such cases this material is usually cast off in large quantities, and cleanliness here is only the result of extreme watchfulness.

The institution of sanatoria for the reception of curable cases has undoubtedly worked wonders in preventing the spread of the disease, and were it possible and practicable to place all persons with early tuberculosis in such institutions, much that has been said would prove needless, for it is unquestionably true that thorough preventive measures can be more satisfactorily carried out there than in the homes. In the sanatorium the constant medical supervision, the discipline of the institution, the daily requirements of strict sanitation, all beget in the individual habits of hygienic living, which do not leave him when he is dismissed; on returning to his former surroundings he carries with him the propaganda of cleanliness in a way that would be impossible of attainment otherwise. So in this crusade against tuberculosis, the institution of sanatoria for curable cases is an object for which we should strive. The State Medical Society, at its last meeting, endorsed the recommendations of the Tuberculosis Committee, among which was one providing for the presentation to the governor and the state legislature the matter of the importance and necessity of state sanatoria for the treatment of the poor. I know that it will be contended that the institution of such will encourage the importation of tuberculosis to our state, and that our sanatoria would be very largely filled with the tuberculous of other states, attracted here by the superior climatic conditions; and realizing the futility of quarantine, and believing that it is wrong, I still maintain that philanthropy and humanity cannot be circumscribed within geographical boundaries. Besides, I believe the fear is ill-founded, for the eastern states are setting California a lesson in the care of the tuberculous poor which we can do well to emulate; and the reports that come from these institutions are very fast minimizing the importance which climatology has popularly held as a curative factor in this disease. In making this statement I am not unmindful of the ignorance displayed by so many physicians in the east in sending their incurable patients to California, and the incalculable suffering caused thereby, but I am sufficiently optimistic to believe that with the knowledge of the results of institution treatment in eastern states, the emigration of patients westward will rapidly decline, and that we will be in danger of losing the reputation we have as a health resort; a calamity that will bring with it compensating blessings. Not only should there be state sanatoria, but populous communities should have their own sanatoria, either under municipal control or supported by private beneficence.

It would take up more than the allotted time to go in detail into the question of the transmissibility of tuberculosis through infected food. The subject is still unsettled, but much has been done since Koch's remarkable statement in London two years ago, regarding the racial differences of human and bovine tuberculosis. The result of this work does not point toward a substantiation of Koch's contention. Ravenell concludes a recent article on "The Influence of Bovine Tuberculosis on Human Health" by stating that "the bovine tubercle bacillus is responsible for a certain proportion of the deaths from tuberculosis in children; and there is strong evidence at hand to show that the number of children infected from bovine sources is quite large. Whether this number be large or small, it is none the less our duty to guard against the use of milk from tuberculous cattle as food." One who has carefully examined the mortality statistics of children must be impressed with the large number of deaths from tuberculosis in infancy. The tables of Bigg's in a recent number of the *Archives of Pediatrics*, which include the deaths from tuberculosis among the children of New York for the last 20 years, show the vast majority of cases to have occurred during the first five years of life. Heubner has shown that the frequency of tuberculosis increases up to the end of the first year, and that it diminishes again as the child gets older, up to the tenth year. That this decrease is partly due to the development of resisting powers is undoubtedly true; but when we consider that the artificially fed child during the first year of life derives its entire sustenance, in the majority of cases, from cow's milk, I believe that the high mortality during that period suggests that we have in tuberculous milk a frequent source of infection. Whether this be so or not is impossible of demonstration at the present time. Tuberculous animals and their food products should, however, be rigidly excluded from our markets. Cattle reacting to the tuberculin test should be excluded from the herds, and those with demonstrable lesions should be slaughtered. This inspection should be under state control, and the state should remunerate the owner for his loss.

Considerable impetus has been given to the subject of artificial immunity by the recent work of Maragliano, Behring and others. While this work has been confined to animal experimentation, the results seem most encouraging. Maragliano has showu that it is possible to raise the natural immunity of different animals experimented upon, by injecting bacterial proteids and other products, and has shown that there is a progressive increase in the defensive bodies of these animals. Behring has likewise demonstrated that by regulated intravenous injection of human tuberculosis virus into calves, they were rendered immune to injection of bovine tuberculosis virus that was fatal to animals not thus immunized. It remains to be seen if this process of vaccination against tuberculosis is applicable to man, and whether or not we are on the threshold of an era that is to record the extinction of this disease from the human race, or, at least, to rob it of its horrors, as thoroughly as smallpox has been rele-

gated to the class of strictly preventable diseases by the discovery of the immortal Jenner.

Education of the masses, legislation, laboratory research and animal experimentation are not all, however, in this combat against tuberculosis. There is still work for the family physician. On his shoulders must fall the responsibility of being ever watchful over those with an hereditary tendency, more properly called congenital feeble resistance. It is in these individuals that the neglected cold, the attack of pneumonia, typhoid fever, or measles, too often, by still lowering resistence, renders possible the development of tuberculosis, if an opportunity has been offered for the entrance of the bacillus. Convalescence from such diseases should be more carefully safeguarded, and greater effort made to raise the resistance, before such patients are allowed to return to work. Diagnostic acumen should be developed to more frequently detect the signs of the disease in its incipiency, for too frequently the tuberculous individual becomes a consumptive while under treatment for bronchitis, digestive derangements, anemia and various disorders which mark the development of the bacillus within the organism. It is at this time that the accurate diagnosis being made, the patient should be candidly informed of his true condition, and, with a reasonable certainty of cure, he can go forth to the battle of life with confidence and hope; and with a full realization of his duty to society, can be of valuable assistance in this combat.

DIAGNOSIS AND MANAGEMENT OF TRANSVERSE PRESENTATION IN THE LATER MONTHS OF PREGNANCY.*

By CHARLOTTE J. BAKER, M. D., San Diego.

IN CONSIDERING any subject in connection with the fetus it is well to review the various theories which have been put forth in regard to its relations to the maternal parts. Especially is this necessary when questions of position and presentation are the subjects to be discussed. Charpentier tells us that it is to Mme. Lachapelle that we owe the first exact definitions of presentation and position. The presenting part is that part which completely or almost completely fills the passage. Position is the relation of the presenting part to certain fixed points of the pelvis of the mother.

She divided the presentations in cephalic, pelvic and trunk, which she further divided as the obstetricians of to-day divide them, the cephalic into vertex and face, the pelvic into breech and foot, and the trunk into either right or left shoulder.

One of the first phenomena of embryonic development is flexion, which continues throughout the growth of the fetus. As the development progresses, the pelvic end being larger, it naturally fits into the larger portion of the ovoid retaining cavity, which is the upper portion, thus throwing the cephalic or smaller portion of the fetus to the lower part of the uterus, which gives us the most common position of the child with the vertex presenting.

Hippocrates held that originally the head was uppermost, and was held in position by bands; at the seventh month the bands broke, the fetus being led by some instinct helping to tear them with its hands and feet and by its own weight turning a somersault. Ambroise Paré thought the fetus instinctively took the easiest position. Baudelocque claimed that the length of the fetus being greater than the diameter of the uterus, the somersault theory was impossible. A great many have held that the point of placental insertion determines the position of the fetus in utero. Paul Dubois made a series of celebrated experiments in which he proved that the center of gravity was in the trunk near the head, and so adopted the theory of Paré, that the fetus instinctively took the vertex presenting position, as this would be the easiest, the cavity of the uterus and the shape of the fetus corresponding. Dubois' experiments were repeated by others, and they, contrary to Dubois, returned to the somersault theory of Hippocrates.

Simpson raised four principal objections to all these theories: 1. The vertical position is not constant. 2. The umbilical cord is too long to suspend the child, and the placental site is often varied in the same position of the fetus. 3. A hydrocephalic fetus rarely gives us a vertex presentation, and an acephalic often presents by vertex. 4. A premature fetus often presents by the inferior extremity. He regards the muscular movements of the fetus as the cause of the presentation, and these movements as reflex and due to the pressure of the uterine walls. Cohnstein considers the position at different periods of gestation due to different conditions of fetal circulation. Until the sixth month the superior half receives more blood than the inferior half, so the latter is heavy from vascular tension, and thus more frequently presents at this time.

Pajot first formulated the law of fetal accommodation, *i. e.*, "When one solid body is contained in another, and if the latter is alternately in a state of motion and of repose, and if the surfaces are rounded and smooth, the included body constantly tends to accommodate its shape and dimensions to the shape and capacity of the containing body." From this he deduces: 1. That the narrow transverse diameter of the uterus hinders trunk presentations. 2. At the fifth and sixth months the pelvic extremity, with the limbs, equal the head in volume, hence either end presents. 3. Toward the close of pregnancy the pelvic end is larger than the cephalic, therefore the cephalic presents. The folding of the fetus is caused by diminution of the liquor amnii as compared with the volume of the fetus.

The position of the woman changes the angle of the uterus so that the effect of pressure on the head and the force of gravity change the position of the head. When the uterine walls are firm or there is actual contraction there is less lateral deviation of the head.

The vertex presentation, as we have seen, should naturally be the one most frequently met, and we find that figures also prove this fact. In 38,770 labors reported from various sonrces, 36,842 have been vertex presentations. It has been estimated that transverse presentations occur about once in every two hundred labors, and the causes of this presentation have been the subject of study by obstetricians of all time. Most of them are accepted by all as factors in this condition. Stated briefly, they are: That the peculiar shape and obliquity of the uterus is probably the most common cause, right obliquity being more common than left. That the pendulous abdomen caused by many pregnancies reducing the support which the uterine walls naturally give the fetus, and causing as it does defective uterine action, plays a large part in all abnormal presentations. An excess of liquor amnii, causing over-distention and allowing too free movement of the fetus, and the faulty insertion of the placenta as in placenta previa, are active in causing transverse as well as other faulty presentations.

A premature fetus, as we have noted before, often presents by the trunk or breech, in fact rarely by the vertex; with this may be classed the cases where the fetus is very small. Contracted or otherwise deformed pelves play an active part in difficult and abnormal labors.

In view of the comparative frequency of trunk presentations, it certainly becomes our duty to recognize the condition before labor; that is, in the later months. At this time the obstetrician is often content with knowing from an early examination that the pelvis is roomy and from the care of the woman during pregnancy, that the kidneys, liver and bowels are doing their part in keeping the patient well. The

*Read at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April, 1904.

other necessary examinations which are now recognized by all as the duty of the physician who is to care for a woman at this most trying and important time having also been made. But often the examination for the presentation and position of the fetus is left until labor begins, when the correcting of the wrong position is undertaken. The text-books are very full of directions as to what to do at this time, but few, if any, impress the importance of trying to rectify a faulty presentation during the later months of pregnancy, when much can be done without danger and with the hope, if not the certainty, of a normal, and therefore safer labor for both mother and child.

This was recognized by Dr. John Pechey, writing in 1698, when he calls attention to the advisability of external manipulation in correcting faulty presentations. After the seventh month the position of the child becomes more or less fixed, and the nearer we approach full term the rarer are the changes. They are less common in primiparæ, and more common in contracted than in normal pelves. Changes of position are much more common than changes in presentation, those from the trunk or breech presentation being quite common; but we rarely, if ever, find the vertex changing to a breech.

From all that has been said the practical part of this paper can easily be seen; it is to lay stress upon the necessity for frequent examinations during the later months of pregnancy. Generally these examinations need only be external, as with those few exceptions when the abdominal walls contain too much fat or there is a great quantity of liquor amnii, we can ascertain the size of the fetus approximately and the position exactly. The location of the fetal heart-beat is a great aid, as the heart is nearer by 2-5 to 3-5 of an inch to the cephalic than to the pelvic extremity, and can be heard over the curved back of the fetus in the portion corresponding to the fetal pericardium, distinctly enough to enable one often to locate the position by this alone.

By external examination we also note the consistency, position and shape of the uterus, and can form a very correct idea of the possibility of a change in the position of the fetus without our aid, either for better or worse, by the relation the uterus and fetus bear to each other. If we find the fetus in a transverse position and the walls lax or liquor amnii overabundant, by external manipulation alone we can usually correct the position, and by putting on an abdominal supporter and giving our patient full directions as to the care of herself, be reasonably assured of good results. To illustrate my point, I will report the following case:

Mrs. G., aged 22, second labor, had been under my care during the early months, and had reported a very difficult labor with her first child. From her imperfect description I inferred that it had been a shoulder presentation, and advised her to let me see her by the seventh month, even if apparently well. On examination during the seventh month I found the fetus lying transversely with the back anterior, the right shoulder being the probable presentation. I had the patient lie flat with the thighs flexed, and proceeded to push up on the pelvic end and push gently down on the cephalic; after some time, letting the patient rest from time to time, I was able to hold the head down. Then keeping my hand on the abdomen, I had the patient stand, gave her instructions how to make pressure on the head when returning to the horizontal position, which she followed carefully. As the walls were not lax, and the child of good size, I did not apply the abdominal bandage. One other caution I gave her was never to have a movement of the bowels on a high seat of any kind, but always to use a vessel, and to draw the knees well up on the abdomen and hold the head of the fetus down with the palm of the hand. In this case the fetus tended to return to the former transverse position, but with the intelligent aid of the patient the vertex position was retained, and the labor was easy and normal.

In other cases it has been necessary to replace a number of times, owing ofttimes to the ignorance or carelessness of the patient in carrying out the directions given her. No possible harm can be done to the patient where one is careful to make sure of the diagnosis; but I do not think it wise to leave such cases in inexperienced hands.

During my younger, and especially enthusiastic days, I once very foolishly tried to demonstrate how much I knew, and to show to a friend the ease with which the changes in the position of the fetus could be made by external manipulations. In illustrating I changed a cephalic to a breech presentation, and then had quite a little difficulty in returning it to the former cephalic presentation. It is needless to say that I have since left well enough alone. However, I never neglect to try to correct what I am sure is a transverse to a cephalic presentation, thus giving my patient the best chance of an easy and natural labor.

DISCUSSION.

Dr. E. N. Ewer, Oakland.—I think I have had more than my share of occipital positions. In all cases in which I have the occiput resting in posterior position I use anterior rotation. In one case I was astonished at the ease with which I could rotate anteriorly and arrest an occipito posterior position. I shall always endeavor to use that method. If the labor is slow the patient shall not remain more than 2 or 3 hours with a dilated cervix. I shall draw the head to the perineum and do occipito rotation, and then the head will probably rotate itself. Dr. Baker has stated the cause of transverse positions to be pendulous abdomen, relaxed uterus, tumors of the uterus or child. In is important for a physician to recognize these cases during the last 2 months of pregnancy. Obstetricians have, I think, generally considered it impossible to do an external cephalic version with any likelihood or certainty of keeping the head in that position. Consequently the text-books say very little on that point, but recommend certain lines of treatment at the time the uterus begins contraction. I think that the usual patient I encounter would have considerable difficulty in learning the art of external cephalic version. I think the methods of treatment at the time of confinement brought out in this paper are particularly good. If, as Dr. Baker recommends, we are careful to examine our patient during the last 2 months of pregnancy, and recognize the condition, we will have better results. I think all physicians should call in the first stages of labor, and then in case they find a transverse position they should stay with the patient to keep the head in the lower uterine segment to make it engage in the brim, and when the cervix is sufficiently dilated, rupture the membranes and hold it there. That treatment is almost always successful. I have done it several times with success.

Dr. Van Orden, Alameda.—In regard to the occipito posterior position, I found the anterior rotation to be successful in several of the cases I have had. I had a case a few days ago where I found transverse position and tried to instruct the patient to restore the position, but was unsuccessful. I made preparation to use podalic version, and when the time came found the position normal.

Dr. Bertola, San Francisco.—For the sake of every woman, time should be given for the molding of the head. I think as a rule the profession is too quick to show what they can do in the line of using forceps.

Dr. McLeave, Oakland.—I criticize what Dr. Baker said about training every patient to turn the child. I do not see what good it is going to do to instruct a patient to daily turn the child with its head downward. Unless you can turn the head downward once for all, I do not see how the repeated operation will affect the child. I think our patients are very difficult to train. If we see our patients early enough, and know the condition, having made the one attempt when first recognized to turn the head in the proper position, and if it does not, I think it is sufficient to wait until the first stage of labor, when in the vast majority of cases the head will come down anyway.

Dr. C. Krone, Oakland.—I do not think that physicians can do anything more useful than abdominal palpation. I think that those who have discussed Dr. Baker's paper have misunderstood what she said.

I thought she said that when the position is recognized, to place the child in the position and leave instruction with the mother to attempt to maintain that position. With the frequent visits that we pay these patients I see no reason why such instruction might not be given to the mother. I feel quite sure that abdominal palpation is one of the things that physicians ordinarily omit.

Dr. H. Gibbons, Jr., San Francisco.—I have not much to add to this discussion. In regard to the movement of the child and change of position, it has been said that it was with great surprise that the movement was made. I remember having been greatly surprised to see how easily the movement could be accomplished. But while it is in many cases accomplished with ease, it is quite often very difficult. It is resented by the uterus, which contracts with violence and persistence. The first time I did make a change of this kind was by external manipulation. I found the head was on the left side, and that it was a left dorso-anterior position, and feeling about, I felt the head move, and pushed it into the vertex position, and there it stayed for several days. The movements can be facilitated by manual palpation, by fingers in the vagina. I believe in this manipulation.

Dr. Baker, San Diego.—I think the condition of the child is as important as that of the mother, and I do not believe enough stress has been laid upon this point. One patient had had three previous confinements, not lengthy labors, but all the children died without apparent cause. The mother was very anxious to have a living child. During this last pregnancy I watched the heart beat, and, during what seemed a very short time, I found the child's heart growing weak, and delivered the child with forceps immediately. With regard to using an anesthetic in changing the child, I do not think it is necessary to use complete anesthesia. In regard to my own paper, I wish to emphasize the importance of early examination. In a number of cases I have been called in late, after some other physician, and found that there had not even been an examination of the urine. In regard to giving instructions to the patient, I never think of such a thing. I did the changing myself, and then gave instructions how to keep it there, and saw the patient very often.

SECOND AND FOURTH POSITIONS OF THE VERTEX.*

BY HENRY GIBBONS, JR., M. D., San Francisco.

I HAVE long been impressed with the want of agreement of the text-books on obstetrics in regard to the occurrence and the frequency of second and fourth positions of the vertex. Until recently little more than the possibility of the occurrence of the left occipito-posterior position has been admitted. Baudelocque, Boivin, La Chapelle, Naegele, Simpson and Barry, Meigs and others asserted that in many thousands of labors it was exceedingly rare. Naegele, Jr., alone at this early period acknowledged its occurrence in any but a fractional percentage. In the early part of the last century the opinion was universal that right occipito-posterior positions were equally unusual. In other words, it was held that occipito-posterior positions, both right and left, are almost never found. The publication, in 1818, of the statistics and claims of the elder Naegele seems to have made a remarkable impression upon the professional world, which rapidly fell under this author's influence. The glamour of Naegele's dictum has dominated the minds of obstetrical teachers for nearly a century. Only recently is the tendency shown generally, to doubt the Naegele figures. One cannot avoid the impression that the extreme views taught by him were dominated by a theory to which facts were made insensibly to conform. It was a captivating theory.

*Read at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April 19-21, 1904.

Having become convinced by long observation that second and fourth positions do occur in considerable proportions, I have been interested in preparing the accompanying tabular statement of the opinion of obstetricians, which will serve to some extent to show the teaching of the various text books accessible to American students during the last twenty years. Opinions of earlier observers are included. These figures indicate a discouraging variety of opinions and experience. Taking a general view we find that authority varies the frequency of left occipito-anterior positions from 52.6% to 86.36%; the right occipito-anterior position from not at all to 22.5%; the right occipito-posterior position from not at all to 38.8%, and the left occipito-posterior position from not at all to 11%. We must of necessity admit that there was much error in these observations, for one cannot assume that there are different proportions for different countries and different decades, unless, indeed, the size of the child's head may influence its position.

The many thousands of labors recorded by Baudelocque, Madame La Chapelle and Madame Boivin at the beginning of the nineteenth century seemed to demonstrate the almost entire absence of occipito-posterior positions, while they gave about 80% to the left anterior and about 20% to the right anterior. And now came Naegele with the assertion and apparent demonstration that there were but 70% of the left anterior, and none of the right; and about 30% of the right posterior position and none of the left. Somewhat later Naegele Jr. found 2.46% of fourth positions, and Dubois 2.87% of the second; nevertheless the profession clung to Naegele's view. Later still came Murphy's percentages in 68 carefully recorded cases in Dublin Lying-in Hospital—too small a number to have much value. He found the proportions of second and third positions equal—16%—and of the fourth position 4%. In 1894 Jewett stated that a fair average in a hundred cases was 1st, 70; 2nd, 10; 3rd, 17; 4th, 3. Of ten of the text-books published in the last three years, six recognize the occurrence of second positions in considerable or large proportion and the fourth in from 1 to 5%, while four still hold to Naegele's figures. It is proper to add, however, that all describe the mechanism in second and fourth positions, and hence recognize their occurrence.

The experience of a man in private practice, however large this may be, is necessarily so small relative to a hospital experience that it would be far from modest to attempt to contest on the strength of such experience the authoritative record of a century. But already this record has been questioned, hence it will not be amiss to present some results not altogether in conformity with the views held, up to the last few years, at least.

For years past I have recognized, from time to time, left occipito-posterior positions, in some of which anterior rotation took place and in others the forceps were required. There could be no room to distrust the observation, and the mode of delivery confirmed it. Of these earlier cases no record was kept, but in my last 365 vertex deliveries there were 13 of this position, or over 3.5%. In eight of these the anterior rotation was more or less suddenly accomplished and under my observation, labor in three having been tedious. The forceps were applied in six; after rotation in one to hasten delivery because of convulsions; to rotate anteriorly in two, the forceps being then removed and the natural effort completing delivery; and to hasten delivery in three, the occiput rotating posteriorly and labor having continued for from two to three days. One child was lost by the inclusion of a loop of the cord between the forceps and the child's head. This record does not include a number of cases of the same position seen in consultation.

It is much more difficult to discriminate as between the second and third positions, mainly because, as is claimed, rotation of the head into the second may have taken place before the first observation of the physician. This presupposes a rotation high up in the pelvis, or if low down, then while the head is still covered by the uterus; conditions, I contend, which do not often exist; and besides, recognized occipito-posterior positions usually cause protracted labor, hence the inference that such positions should usually give opportunity for their detection.

Here is the gist of the matter: Why should the child's head always avoid the left oblique diameter? Naegele made no claim that the rectum is the cause. Rotation must take place while the head is in the brim, while it is in the cavity of the pelvis, or when it has reached the floor of the pelvis. Can it rotate while in the brim? I doubt it. We have no evidence that it does. Does it rotate while in the cavity of the pelvis and before reaching the floor? If so it must rotate in two stages; first, from the right oblique to the left oblique diameter, where it remains for a longer or shorter time, and second, into the conjugate. Does it rotate only when it reaches the floor of the pelvis? Dubois has shown by experiment frequently repeated, that rotation does take place at the floor and through the instrumentality of the floor, at which time it could not uniformly elude the observation of the attendant. Impressed by the dictum of Naegele, whenever examination has disclosed the child in the second position it has been the almost uniform inference that its head entered in the third position but had already rotated into the second. This seems to me an unwarranted conclusion. Since we so frequently find second positions before the head has reached the floor of the pelvis, it is a reasonable conclusion that many of them at least were so from the beginning. My own observations for a good many years, made while the head was still well up in the pelvis, have shown me a very large proportion of original second positions, if not a decided preponderance over the third; and recent more careful prepartum external palpation, the location of the fetal heart, etc., have strongly confirmed me in this view. In my last one hundred consecutive vertex cases, examined with more than usual care, I have found the proportions as follows: 1st position (O. L. A.) 66, 2nd position (O. D. A.) 20, 3rd position (O. D. P.) 12, 4th position (O. L. P.) 2. I am ready to admit, without discussion, that in 70% of all vertex cases the occiput is turned to the left, and that in 30% it is turned to the right, but I am positive that in my experience in from 2 to 4 of the 70 the occiput is turned *posteriorly*, and that in from 15 to 20 of the 30, the occiput is turned *anteriorly*.

Diagnosis.—Having seen that second and fourth positions of the vertex do exist, and in considerable proportion, it is important to determine how their diagnosis may be made. It has no doubt occurred to many physicians that occipito-posterior positions have not been recognized in the earlier—and sometimes in the later—part of labor, and that infants have been lost and mothers seriously lacerated by the forceps in delivery with the occiput posterior. Labor in these cases is almost uniformly tedious, and the desire to shorten suffering often induces a resort to forceps when delay to permit of moulding, adjustment and rotation is essential to the best results. Hence the great importance of a diagnosis of the position. There are several methods by which the diagnosis may be made and corroborated in nearly all cases: First, by external palpation prior to labor; second, by determining the location of the heart through the sound of its beating; third, by digital and manual examination through the vagina; fourth, by observation of the mode of delivery of the head and shoulders, and fifth, by observing the location of the caput succedaneum.

It is rare in vertex cases that the hard and rounded head cannot be felt above the symphysis. The "pelvis is full," hence a vertex presentation is assured. If now the broad plane of the back is felt directed forward and to the left or right the occiput is to the left or right and directed forward. But if the narrow plane of the side of the child is forward and to the right or left, then the occiput will be directed backward and to the right or left. On the opposite side of the abdomen to the narrow plane may often be felt the legs or arms. The forehead is the longer arm of the head. When, therefore, the head felt above the symphysis extends farther to the left of the median line the forehead is to the left side and the occiput to the right. If a vertex presentation is made out and the heart is heard in the left iliac region the position is the first. If it be heard near the median line it is the second. If heard far to the right of the median line, in the flank, it is the third, and if heard far to the left it is probably the fourth. In the latter it is frequently not heard at all. This method of diagnosis is not always reliable, since, not infrequently, the heart sounds are not heard, or if heard are not well localized or are transmitted to distant parts.

While the vertex may be detected by digital examination per vaginam even long before labor, its position cannot be determined until the head is uncovered by the dilating cervix. Hence error may arise by relying upon this method alone. It is well known that in many cases the head falls deep in the pelvis while yet covered by the undilated uterine neck, and extensive changes in position may take place unobserved. When they can be reached the location of the fontanelles and the coronal, sagittal and lamboidal sutures will determine the position of the head. If there be doubt it can be cleared up by introducing the hand into the vagina, under anesthesia, and this should be done if the forceps are in contemplation.

The direction of restitution of the head and the mode of appearance of the shoulders will often confirm a diagnosis already made. But I must confess that they occasionally disturb such diagnosis, for the head and shoulders undergo very puzzling movements in some cases. It has been demonstrated that the child"s head may be turned upon its shoulders so as to permit it to look directly to the right or left —an angle of 90°—without injury, hence it is not impossible for the head to take the long rotation, leaving the body in its original position, so that after the head escapes in occipito-posterior positions there may be long movements of restitution.

Finally, after the head has escaped the position of the caput succedaneum may offer some assistance in diagnosis. I find, however, that in more than half of my cases there was no caput. If there is long delay after the head was rotated into the conjugate, this evidence is obliterated. It is only when the head is detained a considerable time in an oblique diameter that this sign is available.

Treatment of Occipito-Posterior Positions.—Naegele records that of 1,254 occipito-posterior positions, only 17 failed to rotate anteriorly, an extraordinarily small proportion. Stoltz in 26 had none fail to do so. Dubois in 503 cases had 39. Barry in 76 cases had 2. R. A. West in 481 cases had 15, and in 2,585 labors had 79, or 3%. Litzman records that of all vertex cases rotation backward occurs in 1.2% in normal pelves, 10% in flat pelves and 20% in generally contracted pelves. Simpson and Barry estimated that 4% of occipito-posterior positions failed to take the long rotation, which is corroborated by Edgar in 2,200 labors. Hirst asserts that 1.5% of vertex cases rotate backwards. These statistics show a wide range

of conclusions, and a probable cause in the shape of the pelvis.

In at least 33 occipito-posterior positions in 365 labors in my own practice, I have had 9 in which failure to rotate was observed. I append a table with the principal data

TABLE SHOWING THE OPINIONS OF AUTHORITIES AS TO THE RELATIVE FREQUENCY OF THE VERTEX POSITIONS.

Authority	Year		Cases	O. L. A.	O. D. A.	O. D. P.	O. L. P.
Baudelocque: L'art des Accouchemens	1781–1822		10322	82.5	17.0	0.25	0.20
La Chapelle: Practique des Accouchemens	1821		20698	77.0	22.5	0.80	0.10
Naegele: Ueber den Mechanismus der Geburt	1822			70.0	.10	29.6	0.30
Boivin: Memorial l'art des Accouchemens	1824		19585	80.0	19 0	0.5	0.50
Dubois: Traité Cômplet de l'art des Accouchemens	1849		1913	70.83	2.87	25.66	.62
Moreau: A Practical Treatise on Midwifery, etc	1844	Gives Madam Boivin's figures		80 0	19 0	0.5	.50
Simpson: Sir James Y	1846	Agrees with Naegele		70		30.	
Barry: Edinburgh Maternity Hospital			325	75.7	0.30	23.99	.60
Rigby, Murphy, Tyler, Smith, Ramshotham and Churchill		Agree with Naegele		70.		30.	
Hodge: The Principles and Practice of Obstetrics	1864	Says Naegele's views are extreme					
Meigs: Obstetrics—The Science and the Art	1867	Agrees with Naegele		70		30	
Bedford: The Principles and Practice of Obstetrics	1868	Heartily agrees with Naegele		70.		30	
Roberts: The Students' Guide to the Practice of Midwifery	1876	Says Leishman gives as averages		67.03	9 52	20.92	2 52
Schroeder: A Manual of Midwifery	1876	Does not give the proportions					
Leishman: A System of Midwifery	1879	Gives the following tables					
Naegele, Jr				64 64		32.88	2 47
Simpson & Barry				76.45	.29	22 68	0 58
Dubois—already given above				70 83	2 87	25 66	0.62
Murpby: Dublin Lying-in Hospital			68	63.23	16 18	16.18	4.42
Swayne				86.36	9.79	1 04	2.08
F. Barnes: A Manual of Midwifery	1879	Favors Naegele		70.		30.	
Glisan: Text-book on Modern Midwifery	1881	Does not express an opinion					
Meadows: A Manual of Midwifery	1882	"There are certainly two, possibly four, head presentations"					
Vercier by Pajot: Practical Manual of Obstetrics	1884	Gives Dubois' figure		70.83	2.87	25.66	0.62
Gerthell: Illustrated Encyclopedia of the Science and Art of Obstetrics	1885	Copies Leishman's table					
Barnes: A System of Obstetric Medicine and Surgery	1885	Gives no proportions					
Cazeaux and Tarnier: Obstetrics, The Theory and Practice	1885	Agrees with Dubois		70.83	2.87	25 66	0.62
Galabin: A Manual of Midwifery	1886	"Opinions of modern authors is that the second and third positions are about equal"					
Sdiegelberg: A Text-book of Midwifery	1887	Gives Naegele's figures		70.		30.	
Chapentier: The Pathology of Labor	1887	Favors a middle view					
Pearose in A System of Obstetrics: Hirst	1888	Gives Naegele's figures		70.		30.	
Lusk: The Science and Art of Obstetrics	1892	Gives Naegele's figures		70.		30.	
Jewett: Outlines of Obstetrics	1894	Gives these figures as the relative frequency		70	10.	17.	3.
Parvin: The Science and Art of Obstetrics	1895			abt. 70	Rarest	Next to first	
Fothergill: A Manual of Midwifery	1896	A fair average is		72.	21	10.	5.
Davis: A Treatise on Obstetrics	1896	Does not state. Considers two positions only					
Playfair: A Treatise on the Science and Art of Midwifery	1898	Believes the second position is very far from uncommon					
Jewett: The Practice of Obstetrics	1901	The relative frequency may be roughly stated		75	20.	4.	1
Dorland: Modern Obstetrics	1901	Estimates		70.	10.	17.	3.
Reynolds in American Text-book of Obstetrics	1902			75.	4.	20.	1.
Reynolds and Newell: Practical Obstetrics	1902		3000	70.	1.	28.	0.5
Garrigues: Obstetrics	1902	Seems to think Naegele extreme					
King: A Manual of Obstetrics	1903	Gives Naegele's figures		70		30.	
Prof. Cameron according to King's Manual				67.	10.	20.	3
Warren: The Principles of Obstetrics	1903	Follows Naegele		70.		30.	
Hirst: A Text-book of Obstetrics	1903	Follows Naegele.		abt. 70		abt. 30	
Williams: Obstetrics; A Text-book, etc	1903	"Probably the head rotated in some"	1687	60.9	22.3	14 2	2.6
Pinard: Given by Williams			500	52.6	0.2	38 8	11
Edgar: The Practice of Obstetrics	1903		2200	70.	10.	17	3
Webster: A Text-book of Obstetrics	1903	Estimates		74.	5.	20.	1.

TABLE No. II.

Case	Pregnancy	Position	Hours in Labor: 1st stage	Hours in Labor: 2d stage	Forceps	Where Used	Child	Weight	Perineal Laceration	
1	I para	O. L. P.	9	6½	Hodge	Oblique	Lived	8¼ lbs.	Small	Turned head to O.L.A. and removed forcep.
2	III para	O. D. P.	8½	2	Elliot	Oblique	Lived	8 lbs.	None	Delivered with face up.
3	I para	O. D. P.	76	21	Tarnier	Oblique	Dead before birth	7½ lbs.	Small	Deformed pelvis.
4	I para	O. L. P.	72	1	Tarnier	Oblique	Dead	9¾ lbs.	Large	Loop of cord betw'n head and blade.
5	II para	O. D. P.	34	8	Elliot	Conjugate	Died shortly after	8 lbs.	Small	Deformed pelvis.
6	I para	O. L. P.	40	½	Tarnier	Oblique	Lived	9¾ lbs.	Large	Thro' sphincter. Repaired.
7	III para	O. D. P.	93	½	Tarnier	Transverse	Lived	6 lbs.	None	Premature labor induced.
8	I para	O. L. P.	60	1	Elliot	Oblique	Lived	10½ lbs.	Large	Thro' sphincter. Repaired.
9	I para	O. L. P.	36	3	Elliot	Oblique	Lived	6 lbs.	Small	Turned head to O.L.A. and removed forcep.

It will be seen that six were primipara, that all but two were in protracted labor, from over one to four days, that the weight of the child was about ten pounds in three cases and above the average in four more. Two of the children were dead, one a day before delivery, and one probably by inclusion of the cord between the head and a blade, and one died shortly after birth as a result of difficult delivery. Three of the deliveries were in the same patient, whose pelvis was deformed. Her third confinement was induced at eight months. It took 93 hours, but gave her a living child.

As a step preliminary to all intelligent treatment of occipito-posterior positions it is essential that the diagnosis should be accurately made, and, indeed, that it should be made by external examination, before labor begins. The methods of treatment may be summarized as follows:

Before Labor.—Posture of the mother. Knee-elbow, or knee-chest and lateral semi-prone positions.

During Labor.—Head at the brim or high. Delay interference until full dilation as long as the mother's strength permits. Preserve the membranes until full dilation. Or etherize and rotate the head bimanually and deliver by forceps. Or resort to podalic version.

During Labor When the Head Is in the Pelvis.—Increase flexion by pushing up the forehead, or bringing down the vertex by hand or vectis. Delay as long as is safe to permit moulding of the head. Rotate the head with hands or forceps. Convert to a face presentation. Apply the forceps, draw the head to the perineum and remove forceps. Apply the forceps reversed and rotate. If the occiput rotates to the sacrum, apply the forceps, pull the head down until the root of the nose is under the symphysis, then raise the handles to make the flexion extreme. Place in the Walcher posture. Symphysiotomy. Craniotomy. Cesarean section.

I quite agree with Edgar that "to change a posterior to an anterior position by external palpation or manipulation is a refinement of palpation which I believe to be theoretical in the hands of most, if not all obstetricians * * * but postural prophylaxis offers some hope." This, following Reynolds and Newell, and Edgar, consists in placing the patient in the knee-elbow or knee-chest posture for several minutes—as long as can be borne—mornings and evenings for two weeks prior to labor, followed by the lateral semi-prone posture on that side to which the occiput turns. The hips may be raised to exaggerate this posture. Obviously this maneuver is designed to release the head from the brim, and thus to permit the heavier part of the child (the back) to rotate by its own weight to the anterior part of the uterus, which is now dependent.

When labor has begun it must be borne in mind that this is often a protracted process in occipito-posterior positions. The parts of mother and child are not so well adapted to each other as in anterior positions, and extreme flexion and moulding become necessary to reduce the fetal diameters. Moulding takes time. The process shortens the sub-occipito-bregmatic, the bi-temporal, and the fronto-mental diameters, while it lengthens the occipito-mental and the occipito-frontal diameters to a marked degree, in some cases making a long and flat head. If the head be dragged through the pelvis with forceps before this moulding is accomplished, it adds much to the risk to the child. The membranes should be preserved, as a rule, until full dilatation of the cervix.

Two widely different methods are advised at this early stage. Either avoid interference altogether until the natural effort has accomplished all it is capable of, then apply the forceps and deliver by rotation if possible, or endeavor by the hand to rotate the child to an anterior position.

After reviewing the latter methods, Charpentier says: "With Simpson, Burns, Cazeaux, Joulin, Depaul we reject these internal manipulations as inefficient and useless. Either rotation will occur spontaneously, and we must wait, or else rotation will fail, and we must deliver by forceps." A recent author, Williams, does not believe in much interference except with forceps. He leaves to nature as long as possible, and does not agree in the gloomy prognosis in occipito-posterior positions.

The other school advocates active interference. Turning the head with the hand in the vagina was first suggested by Smellie, but prior to a resort to this, every effort should be made to secure as complete flexion as possible—the tendency being to extension. Prevent the forehead from advancing by pushing against it with the fingers; pull down the occiput with the vectis—a dangerous instrument, and liable to slip—or under anesthesia introduce the hand into the vagina and pull it down. Even put the patient in the knee-chest position to dislodge the head and permit the anterior rotation, or force it with the hand introduced. Of necessity the cervix must be dilated in many cases for this last maneuver, which subjects it to many limitations; besides, the head is apt to return to its posterior position as soon as the hand is removed. It has even been advised to pass the hand into the uterus and over the chest of the child, when, by aid of the other hand over the mother's abdomen, the body, as well as the head of the child may be rotated* This is radical, indeed, and surely available only to those of long experience.

When the head is in the pelvis, and all efforts to secure flexion and rotation have been made without success, and delay is becoming serious to the mother, the forceps must be used in the usual way, and to the sides of the child's head. As the head presses the floor of the pelvis, anterior rotation should be attempted. It will often be accomplished with facility, when the forceps must be removed, since they have become inverted. With the head on the perineum and the occiput anterior, labor is often terminated without further aid. If the occiput has rotated into the hollow of the sacrum or cannot be rotated forward, there is no other alternative but to deliver in this position with forceps, at much greater risk to the child, perineum and sphincter. Episiotomy will limit the laceration. The application of the forceps reversed or with their concavity facing the concavity of the sacrum, rather than coincident with it, is advised to facilitate rotation, when the removal of the instruments is not necessary, as well as to aid in increasing flexion. Craniotomy when the child is dead might be distinctly serviceable, but the cases in which this operation, symphyseotomy, or Cesarean section, are justifiable must be extremely rare. Much more could be said upon this important subject. I have but outlined it, but my allotted time is already exhausted.

In conclusion I may add that I am little inclined to the more radical measures, and agree in the main with Charpentier and Williams. As in the very large majority of occipito-posterior positions the occiput rotates forward spontaneously, how do we know at the beginning of labor in any given case that it will not do so, and what justification will we have for inserting the hand into the uterus and rotating the child at this early period? Let us examine our patients in the last weeks of pregnancy to determine the position of the head, and if the occiput is posterior, resort to posture as already described to cause it to rotate anteriorly if possible; but let us not forget that occipito-posterior positions are normal. Let us give all the time required for moulding and adjustment, and ascertain if nature cannot accomplish the normal rotation. If this fails, then with hand or forceps we can rotate and deliver or deliver without rotation as the possibilities of the case permit.

*Edgar, Hirst and Dorland advise as in the text. Reynolds and Newell advise the opposite side. I must agree with the former.

*Dr. Stanton, *American Journal of Obstetrics*, 1897, page 105.

APPENDICITIS*.

Some Points in Its Diagnoses and Treatment From the View-point That Its Cause is a Strangulation Produced by Distention Behind a Ball-Valve.

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I WISH to acknowledge my indebtedness to Drs. Black and Leonard of the Hendryx Laboratory, by whose courtesy that institution was used for most of the work. The specimens of inflamed appendices of dogs are the result of some experiments undertaken to demonstrate that strangulation from over-distention of the appendix will produce appendicitis. The experiments are given in detail in the *Journal of the American Medical Association*, March 26, 1904. They were based upon the supposition that appendicitis is due to an obstruction at some point in the lumen of the appendix (this is caused by a fecal plug or a concretion lodging behind a kink or constriction), that the cavity behind this point becomes over-distended by secretion and effusion, that infection follows because this distention by pressure limits or arrests the blood supply to the mucous membrane (weakening or destroying its resistive power), and opens natural and traumatic avenues for the entrances of germs. If the obstruction gives way before necrosis has begun, a simple inflammation of the appendix follows. This may be a slight catarrh of the mucosa, causing scarcely a symptom, or it may be followed by an infiltration of all the coats of the appendix. Sometimes it will obviously be simply appendicular colic, without any inflammation following.

If the distention remains until necrosis becomes established, a more serious inflammation follows, usually with perforation, and if it remains permanently, necrosis or gangrene with perforation must follow (unless by a mere chance the contents become "encysted").

The technic in brief was as follows: Under ether, laparatomy was performed, a ligature passed about the proximal end of the appendix, subperitoneally, so as not to affect the circulation, and the appendix distended with tap water through a needle connected with a manometer to register the amount of pressure. This was varied from 75 to 150 mm. in different cases, aiming at the normal blood pressure of the dog. Usually the ligature was cut after two and a half to three hours, releasing the pressure, and the dogs were allowed to live 24 to 48 hours. At the end of this time they were killed and the specimens removed. Ten experiments were carried out on eight dogs. Most of the specimens are here, and most of them were preserved by the Kaiserling method, which preserves something of the gross appearance present in the fresh specimen, though one sees now but little of that fiery-red appearance so typical of acute inflammation of a peritoneal surface which all of these specimens presented when removed.

Nos. 2 and 3 had injected into the lumen of the appendix, in addition to the water, a bouillon culture of staphylococcus albus and coli communis. These exhibit slightly more virulent inflammation than most of the others. The others received only the water as it was drawn from the faucet in the laboratory. In Nos. 1, 7 and 8 the attempt was made to permanently occlude the appendix in the hope that necrosis and perforation would follow. In this we failed, because in a very short time, less than two hours, the ligature would cut into the tissues sufficiently to allow a leak and consequent release of pressure. We succeeded in producing so-called catarrhal appendicitis only, because all our efforts to maintain a permanent distention proved futile.

Specimen No. 4 was first simply ligated and not distended. After 48 hours there was no inflammation, and it was then again ligated and kept distended for three hours. Thirty-six hours later a typical appendicitis was present.

Specimen No. 7 was first subjected to an injection of bouillon culture of coli communis and staphylococcus albus, and neither ligated nor distended. After 48 hours there was no evidence of inflammation. It was then ligated and distended, and the ligature allowed to remain. After 48 hours more, severe appendicitis, with adhesions, developed, shown imperfectly in the specimen.

If temporary distention of a dog's appendix produces an inflammation practically identical to that frequently observed in man; if a kink or constriction is always present in human appendicitis; if a permanent occlusion of the human appendix is often found, and if extreme distention is not infrequently noted in early operations, is it not reasonable to assume that in those cases of appendicitis in which the obstruction is not present at the time of the operation, the plug or concretion has escaped into the cecum, after *temporarily* causing distention, pressure upon the blood vessels and infection?

The practical bearing of this theory upon the diagnosis and treatment of appendicitis is quite important. Some of its most valuable hints come from a careful study of the history of pain and tenderness during the first hours of the attack. If the distention comes from a sudden increase of intra-colonic pressure produced by athletic exertion, or accident, or gastro-intestinal disturbance (forcing fluid into the appendix, which, by its recoil, forces the concretion into the constriction, closing the ball-valve), the onset will be characterized by severe pain coming on suddenly. If the occluding mass is small or pliable, and is forced out through the constriction by the increasing distention, there will be a sudden cessation of acute pain. If the occlusion is permanent (that is, if the plug is too large to pass, too hard to be compressed, and fits too accurately to allow of a leak), distention will increase until the intra-appendicular pressure equals the arterial pressure (perhaps gas formation may make it exceed that), circulation will be arrested, and necrosis or gangrene will follow. After a time the nerve endings involved in that process will fail to report pain, and the patient feels relieved; but we know it is only the lull before the storm, which breaks out with redoubled fury when the gangrenous tissues give way and allow the pent-up infection to enter the peritoneum.

I believe that in many cases we can diagnose these different conditions accurately, by carefully studying the history. If I get a clear history of acute, colicky pain continuing less than an hour, or even two hours, with a fairly sudden cessation, I feel confident that the obstruction has given way, and that only a so-called catarrhal appendicitis is to be expected. There will still be pain upon moving about or from rolling of the intestines, and there will be tenderness upon pressure, but no more acute, spontaneous pain. This means inflammation in the appendix, but relief of the distention and strangulation. Again, when the pain has been severe for several hours, there has been frequent vomiting and perhaps two or three attempts at stool, there can be no practical doubt that the distention will not be relieved through anatomical exit into the colon, but by rupture of the appendix, following necrosis or gangrene. If this acute pain gradually diminishes after six to twelve hours, it is quite certain that considerable gangrene is present, usually complete gangrene of the appendix beyond the constriction. The sudden reappearance of severe pain, 24 to 48 hours after beginning of the attack, means peritonitis following. There will, of course, be many cases on the border lines in which the actual condition cannot be known; but during the last three years I have rarely failed

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to diagnose so-called catarrhal cases from perforative ones, the diagnosis being confirmed by the findings at operation or the further progress of the case.

A patient of mine recently gave a typical history of recurrent attacks of mild appendicitis in one sentence. She said: "I would have severe pain for a short time and then be 'so sore' for several days afterward." This is the characteristic history. Severe pain while the distention and strangulation continues; relief from acute pain as the obstruction escapes, but continued tenderness from the inflammation meanwhile established by the germs driven into the exsanguinated tissues. An infection once established may of course follow any one of the innumerable processes observed in appendicitis.

The treatment as suggested by this theory may, in the first stage, be likened to that of strangulated hernia. The pressure upon the blood vessels is practically a strangulation. If the strangulation is not promptly relieved, necrosis or gangrene will follow. We say, "Don't allow the sun to set upon a strangulated hernia." We may say with equal propriety, "Don't allow the sun to set upon a strangulated appendix." Could we always know that strangulation was or was not relieved, the indication would always be clear. Unfortunately, we cannot always be certain. Still, study, from this standpoint of distention as a cause, throws a flood of light upon the subject, and failure to make this diagnosis should be rare. Unfortunately again, patients so commonly fail to call the surgeon during this early period, when it is simply a question of strangulation. In a large proportion of cases it is the resulting infection (so often already a peritonitis) which claims the attention of the surgeon. If the pain has been slight and of short duration, and only slight tenderness remains, it is safe to say that the patient needs no treatment for that attack. Of course, he will probably have further attacks, and needs his appendix removed on that ground. The appendicular colic is evidence of a constriction. A plug of feces or a fecal concretion will reform and sooner or later produce another attack. But for the present he is safe with a simple catarrhal appendicitis. The possibility of dislodging this plug either into or out of the appendix by some form of taxis or massage occurs to me, but I have had no opportunity of testing it. As a matter of fact, we are rarely called early enough to apply it (within three or four hours), and many anatomical difficulties present themselves.

Operation, if performed at all, must be done before perforation or peritonitis supervene. The question of "early operation" should be settled early, within 12 hours if possible, almost certainly within 36 hours, and at least within 48 hours of the onset of symptoms. It is impossible to make rules by hours or by the severity of the pain; distention advances at such varying rates, and the virulence of germs varies so greatly. The weight given to the evidence derived from a careful study of time and pain must depend upon the judgment and experience of the surgeon. It is comparative evidence, and cannot be tested by a fixed measure. It should be only the most positive evidence that allows the case to go on with the assurance that only a mild attack without consequence is impending. When in doubt during these early hours, I advise operation every time. If the error is made of removing a catarrhal appendix early, no harm is done. It is even then a good riddance to the patient.

But appendicitis is treacherous, and more than time and pain must be considered. Sometimes in the most serious cases the patients have little or no pain during the first few hours. All the symptoms must be studied, of course, but always bearing in mind the probable stage of the strangulation. But, unfortunately again, we are so often called upon to consider this question of operation when we know the case is one of peritonitis rather than appendicitis only. It may be limited to a small portion of peritoneum, may be a walled-off abscess, but is, nevertheless, peritonitis. The removal of all the infected tissue is now out of the question, and to my mind Ochsner has conclusively proven that a much larger percentage of such patients get well if let alone than if meddled with by operation. A certain number will die with any kind of treatment; but my personal experience with both forms of procedure, though more limited than that of many surgeons here, is overwhelmingly on Ochsner's side of this exceedingly serious controversy.

One of my earliest experiences (long before I heard of Ochsner) came near converting me to the "let-alone" plan of treatment during this stage. It was a consultation 20 miles out in the country. Farmer's boy, 19 years old. Sick four to five days. He was very comfortable; evidently a localized abscess. His general condition was excellent. No suffering. But little fever or sepsis. We operated, of course, secundum artem. I don't know how I could improve the technic to-day. Severe pain followed. Next day delirium, and the following day death claimed the flower of that family. No explanation of mine could convince the family that the operation had nothing to do with the sudden change and resulting catastrophy. I could not make myself believe it. I could not see why there should suddenly be so many more deaths from appendicitis, many more than anyone ever heard of before from all forms of peritonitis put together. Dr. Thorn graphically illustrated the situation at the meeting of this society a year ago. He said: "I have practiced medicine thirty-five years. During the first twenty-two years I had only two cases of appendicitis. In the remaining thirteen years I have had two hundred cases and many deaths." Does anyone believe there were materially more cases after 1890 than before? The doctor simply diagnosed them something else, and there were not enough deaths from it to even remind him of them now.

In the presence of acute peritonitis a focus of acute infection is certain to remain after operation, and the danger of its spreading is immensely increased by the intestinal paralysis, the interference with the normal secretions of the peritoneum and the removal of the barriers already thrown up by nature's protective forces. For percentages of results by the two methods, I will only refer you to the reports of cases by Deaver and Ochsner at the meetings of the A. M. A. in 1901 and 1902. Deaver's mortality was about 15% and Ochsner's 4%. I have been wondering what effect these discussions had upon Deaver.

My experience with appendicitis is limited, compared to that of the surgeon specialist, but, from the standpoint of the general practitioner, may be of interest. I report on only those cases occurring in my practice during the last three years. During that time I have treated 28 patients, and have had the good fortune to see them all recover. Eleven cases were seen before the end of 24 hours from the beginning of the attack. Six cases between 24 and 28 hours from the onset of symptoms. In 13 cases there was peritonitis, and in seven of these striking evidence in the symptoms of a sudden perforation of the appendix. Four of these seven have had operations since, and the diagnosis of perforation was demonstrated in each case. Three of the cases developed typical general peritonitis, requiring weeks to make a complete recovery. Two of these patients (both children) were so ill that recovery seemed impossible for days. All recovered. A distinct tumor was noted in eight cases. Immediate operation in the beginning of the acute attack was advised in 11 cases, all of them before the end of 48 hours. Thirteen patients submitted to operation, four in the beginning of the acute attack, two late in the attack (opening

the remaining abscess) and seven were so-called interim operations.

All patients not immediately operated on were treated by the Ochsner method; that is, they were kept in bed and given no food or medicine by mouth as long as any decided tenderness was present. In eight cases rectal feeding was carried out for several days. Stomach lavage was employed in only one case. Ice was applied to the abdomen in one case and hot-water bag in several. Opiates, usually morphia, were given cautiously but sufficient to secure reasonable relief from pain. Cathartics were not given until gas was passing freely and the bowels had been moved by enema. In one case of general peritonitis, distention was so great that an aspirating needle was passed through the abdominal wall three or four different times and gas and liquid feces drawn off. The appendix was removed in all these except the abscess cases. All appendices removed presented evidence of constrictions. In only two were true concretions found. Both of these were distended and strangulated. One was wholly gangrenous in an early stage, and the other presented two necrotic spots, one of which broke down within an hour of its removal. The only complications encountered were a suture abscess late in the second week in a patient suffering from pulmonary tuberculosis, and a fecal fistula in one of the late operations for abscess. Besides these 28 cases, I have during these three years seen 16 patients in consultation. Most of these were treated conservatively, though many of them were given food and medicine by mouth during the acute "peritonitis" stage. Only one was operated upon during the early acute stage, three during the interim and three late in the attack, opening the remaining abscess.

There were two deaths. The first of these was a young woman about 34, suffering from pulmonary tuberculosis in an advanced stage. I saw her only once in consultation, about six days after the beginning of the attack. She then had a general peritonitis, of which she died five or six days later. She was not treated wholly by the Ochsner plan, as she was given considerable food and medicine by the mouth. The second case was seen in consultation just about 48 hours after the onset of the attack. There was evidence that perforation had just taken place, but I concurred in the opinion that probably it was so recent that immediate operation would still remove all infection. However, the patient was moved about seven miles to the County Hospital, and then subjected to operation. There was considerable free pus in the abdomen. The patient did badly under the ether, and died in 24 hours from general infection. This patient should not have been operated upon, and in a similar case I should object in future. This case is one of the first in this series, and I had not yet become so fully convinced that some of the infection is bound to remain and cause mischief in these cases. In all of these cases the idea of obstruction and distention as the cause of appendicitis has been acted upon, and has been a valuable aid. The Ochsner plan of treatment has been generally advised, and in my own cases fairly carried out; in many of the consultation cases, only partially at best.

The cases are presented as a plea for the Ochsner plan of treatment. All the patients so treated recovered. The entire series, 44 cases with two deaths, a mortality of a little over 4%, certainly emphasizes the advantage of avoiding operation during the acute stage, and altogether makes a strong argument for the conservative treatment of appendicitis, while acute peritonitis is present.

Conclusions.—1. Obstruction and consequent distention and strangulation is the cause of appendicitis.

2. The exact diagnosis can usually be made from a careful study of the history.

3. The ideal treatment is removal of the appendix before the infection extends to the peritoneum.

4. After this time no operation should be done during the acute stage.

5. Fasting, avoidance of cathartics and absolute rest insures a very low percentage of mortality in appendicitis and peritonitis.

[For discussion see the JOURNAL for October, 1904, pages 300 *et seq.*]

MYOCARDITIS, WITH SPECIAL REFERENCE TO DISORDERED METABOLISM.

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(*Continued from page* 371, *Vol.* II.)

The next question is, What is the cause of the myocardial change? Naturally the first inclination is to ascribe it to anemia from hemorrhage, but it frequently occurs where there was neither hemorrhage nor profuse menstruation, as in the case just quoted; and so this explanation will not suffice. Certainly it is possible that anemia may result in such cases independent of hemorrhage, but this itself would simply be an evidence of disturbed metabolism which would be liable to produce changes in other tissues as well as in the blood. It has not been in my power to obtain a sufficient number of blood counts to warrant any conclusion as to the general appearance of the blood in this class of cases, but the following case will show that the anemia is not necessarily very great. In this instance the left ventricle was dilated, and a systolic murmur could be heard in the mitral and tricuspid areas as well as over the base of the heart in the second left interspace. An examination of the blood made two hours before the tumor was removed gave the following count: Red cells, 4,700,000; leukocytes, 8,000; blood platelets very numerous; hemoglobin, 66%; color index, 0.70. General appearance of cells normal. No parasites found. Differential count, eosinophiles 0.0%, large mononuclears 1.5%, lymphocytes 17.5%, neutrophiles 81%. This patient had not suffered from hemorrhage, nor did the tumor give her any inconvenience, although of considerable size; but she had it removed simply because she felt worried by the knowledge that a growth was present. The only sign of heart disturbance of which she complained was that she became dyspneic more readily upon exertion.

Examination of the heart four weeks after the operation showed that the murmurs had disappeared from the base and tricuspid area, that the mitral sound was impure, and all the cardiac sounds of less intensity than the average.

Kessler in commenting upon his case, of which an abstract has been presented, offers a theory that places the cardiac changes upon a somewhat physical basis. He believes that it is not so much the size of the tumor as its consistency that is responsible for the trouble, and just as the heart, especially the left ventricle hypertrophies during pregnancy, so do similar changes take place in patients suffering from fibroid tumors of the uterus; but they will be better marked in the latter condition, because during pregnancy the increased work of the heart is simply the result of physiological increase in the vascular area, comparatively temporary in character, as it ceases with partruition; but since the tumor consists of dense nodules with a tense capsule, it presents a marked resistence to the circulation, which is also persistent, and consequently the strain upon the heart is both greater and more prolonged. Experience makes one naturally suspicious of a theory that puts a morbid process upon such a mechanical basis. Although it would account for the improvement in the heart, which sometimes follows removal of the tumor, and even if a parallel has been drawn between this and the transitory hypertrophy of pregnancy we must

remember that all are not agreed in conceding the exertion of propelling the blood through an increased capillary to be the cause of the enlargement, but that many regard hypertrophy as secondary to an increased effort necessary for the elimination of an increased amount of waste matter associated with the growth of the fetus.

Another suggestion is that the fibroids and the myocardial changes are due to a common cause. The tumors form in relation to the walls of the blood vessels in the uterus, and it is possible that a simultaneous change takes place in the muscular branches of the coronary arteries, and results in the formation of connective tissue in the cardiac muscle. Upon such a theory as this there cannot be any reason for improvement in the condition of the heart after operation, and yet we know positively that improvement does take place in some cases.

Fleck, in eighty examinations, found that a diseased ovary coexisted with the fibroid, and suggested that the myoma and myocardial changes were both due to an abnormal internal secretion from a diseased ovary. It would be interesting to know what particular disease of the ovary yields this abnormal secretion, since there are so many ovarian troubles without fibroids, and in operations, when the heart has improved after the removal of a fibroid, it should be stated whether the ovary was taken away at the same time.

This whole matter is one which requires very much closer study and compilation of statistics before any satisfactory conclusion can be obtained. It is only within the last few years that any special relationship has been claimed to exist between the uterine tumor and the cardiac changes, and consequently most of the histories lack precision in their description of the cardiac symptoms, the time of their appearance compared with that of the tumor, the condition of the blood in each case, the presence or absence of hemorrhage, the amount of menstrual flow, and the variety of fibroid with which the cardiac symptoms are most frequently associated, *i. e.*, whether it is subperitoneal, mural, or submucus; the fact that there are very many women who have fibroid growths in the uterus, and who do not appear to suffer any inconvenience, is rather puzzling; but it may be that if each one were questioned about the existence of palpitation or a growing tendency to dyspnea upon ordinary exertion, those symptoms would be discovered of which the patient did not complain because she did not suspect any relation between them and the uterine condition; furthermore, if the physical theory of increased resistence to the circulation be true, it is very likely that the situation of the tumor will have some effect in determining the symptoms, because the obstruction to the flow of blood through the uterine vessels will be greater at some points than at others.

The size of the growth is not entirely responsible for the cardiac changes, because in the first case that I quoted the cardiac asthenia was well marked before the fibroid had attained the size of a hen's egg, and this seems to have been the experience of others, who state that the cardiac symptoms frequently antedate the presence of a tumor that can be detected by any method of examination. But although the etiology of this condition is practically unknown, there are more lessons of importance to be obtained from the knowledge that such a relationship exists. First, in all cases of obscure persistent cardiac asthenia the possibility of a uterine origin should suggest itself. Second, when cardiac weakness and uterine fibroids coexist, unsuccessful medication should not be persisted in after a fair trial has been given, because tissue changes in the heart may take place to an extent beyond recovery. A woman should not be told that because her fibroid is not so large as to give her discomfort from pressure, or of such a nature as to debilitate her by hemorrhage, that she is perfectly safe to leave it alone, and that it will disappear with the menopause.

Statistics are imperfect as to the amount of improvement that takes place after the removal of the fibroid, but there cannot be any doubt that in many instances great benefit results; in fact, my attention was first attracted to the subject by the statement of the patient that since the operation her heart has ceased to trouble her. On the other hand operative treatment may have been delayed so long that the myocardium is changed to such an extent as to render any marked improvement impossible, and to increase the danger of the operation so as to render it unjustifiable.

The last series of cases includes those specific infectious diseases which are frequently associated with or followed by myocardial changes. In all febrile infectious diseases the myocardium is liable to suffer simply from the effects of prolonged high temperature; but on the other hand toxic products of certain microorganisms seem to have a special affinity for the cardiac muscle, or it may be that these specific agents, although themselves not very harmful, facilitate the growth of secondary infections which are highly injurious to the heart; or it may be that the microorganisms themselves are present in the myocardium. In cases of pneumonia, rheumatism, scarlet fever, enteric and several others, the physician is continually on the outlook for cardiac complications during the active stage of the disease, but it frequently happens that symptoms of myocardial changes do not appear until the patient is well advanced in convalescence, or even has been discharged as cured, and this late appearance of the symptoms may be attributed to one or more of several conditions. Thus the myocardium may have been injured during the acute stage, but only exhibited symptoms under the strain of exercise or exertion, or it may be that we have the influence of the toxins continuing after the acute stage has passed, just as we have post-diphtheritic paralysis appearing many weeks after all trace of the local infection has disappeared; or it is possible, indeed certain, that during these infectious processes the arterial system, including the arteries, becomes involved, and subsequently we have the gradual degeneration of the myocardium secondary to the coronary changes which took place during the acute infection.

The present intention is to refer only to three of the many infectious diseases associated with myocardial disturbance, and these have been selected because they probably are the most common on this coast, and also for the reason that they illustrate better than any others the appearance of cardiac symptoms during convalescence, or when the patient was supposed to have gained perfect health. The diseases are smallpox, influenza and typhoid fever.

Smallpox.—The following case is fairly illustrative of what may occasionally be found in patients who have suffered from smallpox. On the morning of July 6th, 1883, I was called to see Mrs. A., age 29, who was said to have been "in a fit" for nearly two hours. The patient was lying in bed, unconscious, her eyes open and staring, with the pupils widely and equally dilated. Her body was cold. The radial pulse was slow, irregular and poorly filled; her first sound of the heart could not be heard, the second was loose and flapping in character. At times the breathing appeared to have ceased, and then there would be two or three long respiratory movements. The patient was drawn to the edge of the bed so that her head and shoulders hung over it, with the result that the pupils at once began to diminish in size, breathing became more natural, and in less than two minutes consciousness returned. By this time nitrate of amyl had been obtained, and shortly after inhaling one pearl the patient fell into a sound natural sleep. At my next visit the following history was obtained: Until within the last three years the patient never suffered from any sickness, and had followed her occupation of trapeze performer; but at that time she had a very severe attack of smallpox, after which she suffered from symptoms of heart disease that prevented her resuming her professional career. These symptoms consisted of a feeling of weight and oppression over the precordia sometimes amounting to actual pain, palpitation and shortness of breath upon exertion, and occasional attacks of vertigo. Her extremities were al-

ways cold; she noticed that her ankles were somewhat swollen when she was going to bed at night, but in other respects she enjoyed perfect health. Examination failed to detect the apex beat, either upon inspection or palpitation, the area of cardiac dullness was not increased, the intensity of all the heart sounds was diminished, the first being inaudible in the mitral area.

The diagnosis made in this case was fatty heart secondary to smallpox. In smallpox endocarditis and pericarditis are rare, but in severe forms, especially the confluent variety, it is not uncommon to meet with myocardial changes, both fatty and parenchymatous. These may be due to the toxins of the disease or to secondary infections during maturation, and as a rule recovery takes place after a comparatively short time; but in this case the condition was more persistent, and continued to increase in severity during the first year after the sickness; so it is possible that the degeneration was secondary to endoarteritis of the coronary vessels, a change which French pathologists have described in connection with smallpox.

This patient took arsenic for nearly four months, and improved so much that she was free from pain and able to do ordinary domestic work; but, being a widow with matrimonial aspirations, she very shortly afterward married into her own rising profession, and thus I was robbed of the opportunity of furnishing you with the further history of the case.

Influenza.—Everyone is familiar with the intense general depression consequent upon influenza, and also with the great number of sequelæ consequent upon this disease; indeed so many conditions of poor health appear to date from an attack of grippe that occasionally one is almost ashamed to state his opinion in case it appears to be a cloak of ignorance; nevertheless, it is very questionable whether there is any other malady with such brief primary symptoms that is associated with so much general depression and so frequently paves the way for serious secondary infections. More than sixty years ago Sir Henry Holland called attention to the long-persisting effects of this disease upon those who had suffered from it, so we may comfort ourselves with the reflection that even in the good old days when opinions were formed to a much greater extent from personal observations and the minds of men were less liable to be biased by a plethora of medical journalism it was recognized that influenza was responsible for a multitude of evils.

The following case came under my observation last winter, and is quoted because it is a fair sample of the insidious way in which myocarditis frequently follows an attack of influenza:

Mr. G., age 43, came to my office during the first week in January, with the statement that he did not feel that there was anything especially the matter, that here was not any organ that seemed to have gone wrong, no palpitation, no indigestion, but that he was out of sorts, and that several friends had commented upon his gray appearance. Upon examination the pulse was between 120 and 130, the apex was three-quarters of an inch outside of the left nipple line, and a loud blowing systolic murmur was heard in the mitral area. In answer to an inquiry as to whether there had been any trouble with his heart, he stated that this was the first time he had ever consulted a physician, so he could not say, but that his custom from boyhood had been to spend two months in the mountains every year hunting game, and that he never had suffered any inconvenience. He further stated that just before Christmas he had an attack of influenza, so mild that, although he felt miserable, he did not remain at home during the day, and about one week later, when running up a hill to overtake a car, he experienced a peculiar sensation about his heart that made him give up the attempt. With rest in bed for a month, and the use of iron and strychnin, the heart recovered its normal size, and the murmurs disappeared, but it is still very irritable, so that any excitement induces a prolonged attack of palpitation.

This is the kind of history that is most frequently found in cases of myocarditis whose origin can be traced to grippe. It seems that cardiac disturbance more frequently follows the mild than the acute attacks, possibly for the reason that the patient is less careful of himself, and no precautions are taken against the sequels that are liable to ensue. Another point of importance is that myocarditis is much more common than endocarditis after influenza; at least such has been my experience. Such being the case, we can readily understand that a weak muscle may be readily overlooked, and the patient allowed to resume work when an endocardial murmur would have been detected immediately, and as a result the patient detained in bed for a considerable length of time; the presence or absence of a bruit seems to appeal to some men more forcibly than the quality of pulse, and consequently the condition of the cardiac muscle is not always so thoroughly investigated as it should be in patients suffering from influenza; so it may be that the true state of affairs only becomes manifest after the patient has resumed his daily duties and the ventricular wall yields under the improved strain. It is sometimes necessary, however, in this disease to make some allowance for the effects of medicine when estimating the condition of the myocardium, because influenza is very frequently treated by the administration of some of the coal tar series without the addition of some cardiac stimulant to guard against the depression which most of these substances produce. The influenza epidemic of 1889 was probably the most severe that this city has experienced, and it has often been a question with me whether the mortality was not materially increased by the use of antipyrin, which was the most popular remedy both in this country and in Europe at that time. The average dose was ten grains every four hours, and people purchased and used the powders without the advice or supervision of a physician.

On the other hand it must be admitted that the toxins of influenza remain active long after the acute symptoms have disappeared, and are capable of producing new symptoms; the intense inertia of mind and body that persists for weeks, it may be months, bear witness to the truth of this statement, while the subsequent appearance of both sensory and motor neuritis testify to long-continued activity of the poison. One cannot read the history of influenza epidemics without being impressed with the similarity between it and diphtheria; both diseases begin suddenly, and show a preference for the respiratory tract; the sequelæ are not in proportion to the severity of the primary attack, and the late appearance of those aftereffects suggests that in both diseases the toxins elaborated during the life of the microorganism and absorbed into the circulation are slow in elimination, and retain their violence for a long time.

Typhoid Fever.—Just as certain drugs have a special affinity for the heart, so have certain microorganisms, and among those may be included the bacillus of typhoid fever. Even as early as the end of the stage of incubation, signs of cardiac weakness may be detected, and during the first week of the fever, before pyrexia has existed long enough to do any harm, the dicrotic pulse is often one of the earliest symptoms that awakens suspicion regarding the exact nature of the disease. So marked is this early depression in some cases that French writers describe a cardiac variety of typhoid in which the fever is low or absent but the pulse is small, weak and irregular from the beginning; and yet even more positive evidence of the relationship between enteric involvement and changes in the heart muscle has been furnished by the discovery of the bacilli in the myocardium. The injury inflicted by this microorganism is not limited to the muscular fibres, but extends to the interstitial tissue and blood vessels, so that we not only have myocardial degeneration, but there may also be intermuscular infiltration with cells, and the small arteries blocked by endoarteritis.

The lesions produced in the myocardium may persist during and after convalescence, giving rise to attacks of extreme cardiac weakness much more pronounced than was expected from the condition of affairs during the acute stage; on the other hand, there is less reason to believe that the disease of the aorta and arteries initiated during an attack of typhoid

fever may become progressive and only manifest symptoms some years later.

In 1891 I saw in consultation a male nurse who had passed through a comparatively mild attack of enteric fever. The afternoon during his convalescence, while walking in the garden, the patient suddenly fell to the ground in an unconscious condition, and it was only after repeated injections of strychnia and the maintenance of artificial respiration continuously for more than three hours that he roused. During the attack the heart action and respirations were very feeble, but prior to this time his pulse had been good, and trouble was not anticipated. Forty-eight hours later the pulse and respirations were apparently normal. There was a second attack two weeks after the first, which was not so severe, but after this the patient progressed favorably, and at the end of three months went home to his friends in the eastern states, apparently in good health.

There was considerable discussion among the different physicians who saw this patient as to the pathology of the case, most of them being inclined to the opinion that it was one of fatty heart consequent upon the fever; but the apoplectiform character of the seizure, its long duration, the good quality of the pulse, both before and soon after the attack, have always made me suspect that we were dealing with an embolism of one of the smaller branches of the coronary artery derived from a thrombotic deposit upon the roughened lining of the vessel. Osler's emphatic statement that "sudden death not infrequently follows the block of one of the branches of the coronary artery, etc., etc., and this condition may constitute the sole lesion except a slight arterio-sclerosis," is a warning that should always be borne in mind.

But it may be that the symptoms of cardiac disturbance do not become apparent until some years after the patient has suffered from enteric fever. In 1896 I saw a man who was suffering from his first attack of angina pectoris, and there was not anything in his habits or history that could account for the disease except a severe attack of typhoid fever in the year 1890. I know personally that until that time his heart was perfectly sound, but afterward he never regained his former vigor. Subsequently he developed a slight dilatation of the heart with muscular mitral incompetence, and died three years later. No autopsy was obtained. This case is mentioned, not with the intention of demonstrating the relationship between typhoid fever and late cardiac disturbance, but rather with the view of illustrating the observations made by Landowzy, Siredy, Laconbe and others, and which recently have received such support from the statistics collected by Thayer. More gentlemen as a result of careful observations believe that typhoid fever plays an important part in the etiology of arteriosclerosis; indeed, they believe that it ranks next to acute articular rheumatism. I do not think that the discussion of this topic can be closed more fitly than by quoting the conclusion of Laconbe: "The disorders of the heart appearing some years after recovery from typhoid fever may be legitimately ascribed to this disease, if no other malady capable of comprising the integrity of the heart, either before or after the typhoid, has occurred."

The object of these two lectures has been to emphasize some features of myocarditis that very frequently appear to receive too little consideration; especially is this the case in the first three groups of cases discussed where an increased knowledge of the errors of metabolism will doubtless enable us to retard if we cannot remove the degenerative process. The researchers of the physiological and clinical laboratories promise to put our treatment upon a broader basis, so that in treating cardiac cases the patient will not so often be regarded as if he were only a heart, the patient with Bright's disease as if he were a large kidney, and he will be recognized as a man, an aggregation of organs so interdependent that no one can be affected without influencing another, it may be even to such an extent that the secondary symptoms outclass both in prominence and gravity those of the original lesion.

CHRONIC OTORRHEA AS VIEWED BY THE LIFE INSURANCE COMPANIES AND THE MEDICAL RECRUITING OFFICER.*

By A. BARKAN, M. D., San Francisco.

Motto: "As long as a discharge from the ear exists, we are never able to say how, when or where it may end, nor to what it may lead."—Wilde.

THE RUNNING ear, having been considered harmless, nay a benefit to the general economy of the body, by many from time immemorial, has ceased to be a *noli me tangere*. The last twenty years have brought about a change so radical in the understanding of this malady that radical operative measures have been adopted to fight it. While there is a consensus of opinion as to the indications of thoroughgoing curative methods—nearly all surgical in nature—in many cases of acute and chronic purulent involvment of the temporal bone, the battle still wages with regard to those cases where persons have gone on with ears dry at times, as the patient thinks, slightly discharging at others, with good drainage through a largely perforated drum, with little or no odor to the discharge, no pain or dizziness, and a fair amount of hearing—in a word, then, with a periodically and "comfortably" running ear. Such conditions might be found in the head of a surgeon who does not look with favor upon running sores near any other cavity of the body, in the temporal bone of the monarch, "whose head uneasy lies," with the fear of possible otitic brain complications, or in the ear of a street urchin exposed to all sorts of weather and health conditions.

The profession is divided in rating the seriousness of such conditions. In a discussion on this topic in our local society of eye and ear surgeons a suggestion that some light might be obtained from the rate and death table of life insurance companies led to some personal interviews, and to looking up the topic in literature, principally from this point of view, and as the matter is of some interest also to the general practitioner, I presume to give you the results of my somewhat hurried and fragmentary investigations:

The medical officers of three of the most prominent life insurance companies were interviewed. I elicited from the first and second the following:

"Simple purulent otorrhea, if intermittent and trivial only, is not regarded; but if considerable, or even when slight, if persistent, it imposes an addition to the premium rate equal to one-half per cent of the amount of the insurance. Persistent otorrhea, where the secretion is greenish in color, or offensive in odor, or where there is a history of the occasional discharge of blood, gritty matter or of spiculæ of bone, disqualifies during continuance, and ordinarily for a minimum term of one year after apparent final disappearance. In all cases of otorrhea, therefore, the examiner should make the necessary investigation to cover the foregoing points, and should recite the result in his report."

These are instructions taken from Keating's Handbook. From the third life insurance company I elicited that "chronic otorrhea, when existing, or until two years after it has finally ceased, and proper explanation has been made by the examiner, absolutely excludes." This rule was amended later on as follows: "Cases with otorrhea may be accepted if the disease is unilateral, and a competent aurist furnishes a certificate stating that the perforation is in the lower part of the membrana tympani, and that there is absence of granulations, polypi, caries or involvment of the mastoid cells." Dr. Taylor of the New York Life Insurance Company kindly handed me the February number of the *Medical Examiner and Practitioner*, which had just come into his hands. It contains an article of Dr. Phillips, a New York author-

*Read at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April 19-21, 1904.

ity on middle ear suppuration in relation to life insurance. It allows me to bring before you the results of inquiries made by him on a large scale. To. Dr. Phillips' question, "Do you refuse to accept as risks applicants who have either acute or chronic suppuration of the middle ear?" the answer was that nineteen out of twenty-two companies refused or postponed insurance in every case; three had a substandard class or charged a heavy extra. They required a period of from one to five years to elapse after cessation of suppuration before considering the risk. Twenty-one of twenty-two have no substandard class for applicants of this kind. The companies' action is based not on any definite statistics, but upon a general apprehension that applicants who suffer from otorrhea are more than ordinarily liable to succumb to some of its complications. While one of the underwriters "does not look on all cases with that grave apprehension with which they are viewed by many of his colleagues," another one "does not know anything that is more dangerous than purulent middle ear chronic inflammation." "Although," he says, "a man may live for years and suffer no inconvenience, he is living over a sort of volcano, which may blow its head off and wipe the man out any day. Our rule, therefore, is that while there is any evidence of inflammation we charge a heavy extra, and in case the discharge is purulent or bloody, or gives any indication of involvment of the bone, we prefer not to take them. As this has been our usual plan for forty years or more, of course we have no statistics that would bear upon the subject at all, as we have not been able to follow cases up, but have rejected the same." Another opinion given is: "We consider the risk, if the applicant presents the certificate of a competent aurist that he has entirely recovered, or if at least three years have elapsed after the cessation of such suppuration." This fairly represents the question from the standpoint of underwriters. Allow me to cite now a few medical authorities:

Sir William Dalby, a wise and conservative advisor, the Nestor of British otologists, says: "There will be other cases in whom can be detected an exposed surface of dead or carious bone within the tympanic cavity; with such it has been my habit to advise that their lives should not be taken by life insurance companies. Indeed, at the present time it is probable that no life insurance company would accept a life which was complicated with otitis media suppurativa, *even if no dead or diseased bone could be demonstrated*, or if they do so, they exact a much higher premium."

Macewen remarks: "We cannot too often recall the warning that the virulence of an otorrhea cannot be measured by the quantity of the secretion, its odor or the slightness of its initial symptoms, and that the pyogenic process may proceed insidiously until some accidental circumstance precipitates a dangerous or fatal crisis." In another place he states: "The virulence of a discharge cannot be measured by its odor. Nearly odorless otorrhea may contain pathogenic micrococci, and some of the most serious intracranial inflammatory lesions ensue in the presence of an odorless otitis media." Again: "One who has a chronic purulent otitis media is liable to have, with very little warning, a most serious, or even a fatal, illness." But there is a passage in Macewen's book on "Pyogenic Diseases of the Brain and Spinal Cord" which more than any other applies to the cases which we touch upon in this paper, when, having exhausted all medical treatment, the ear is still slightly running, and we are sorely tried to decide whether to operate on the ear or trust to the *vis medicatrix naturæ*. Let us heed the words of him who, oftener than any other surgeon living, has successfully followed the pyogenic path of disease from the ear into the brain. They are: "The extent of disease cannot be measured by the amount of purulent discharge issuing from the external meatus, as very extensive disintegration may proceed in the middle ear and its recesses by a process closely resembling 'caries sicca,' though there is generally a slight aural discharge and an oozing of muco-purulent matter."

Professor Ballance of St. Thomas Hospital, London, has the following apt illustration of our topic: "No surgeon would advise that operative treatment for the cure of caries of the sternum should be deferred until the pericardium has become infected, or the patient has commenced to develop the symptoms of general infection. Nor would any surgeon postpone the operative measures necessary to heal a cavity in the head of the tibia until the abscess had made its way into the knee joint. These remarks apply to the necessity of radical operative interference in chronic, not in acute, cases of otorrhea."

Troeltsch, one of the founders of scientific otology, in his masterly treatise on ear affections common to children, many years ago said: "All these inflammatory, embolic and septic processes, which as sequelæ of chronic purulent otorrhea so frequently cause death, may come about without any caries being present. The purulent inflammation of the soft parts of the ear alone are sufficient for the development of these conditions." The weight of this opinion cannot, I take it, be diminished by Brieger's statement that there are certain purulent inflammations of the mucous membrane lining the drum cavity which may be considered almost absolutely free from danger, which hardly ever lead to endocranial complications; and when the mucous discharge, threadlike in form, contains the pyogenic bacteria in remarkably scanty numbers, I cannot understand these cases, a sort of harmless blenorrhea of the middle ear, which Brieger refers to; and his statement as to freedom from complications in these seems to me quite hedged in. Pollitzer excludes all cases of otorrhea which show granulations or polypi in the ear, desquamative processes in the middle ear, caries, and paresis of the facial nerve, and adds that "a conditional acceptance, i. e., with increased premium, may be permitted in the case of those in whom, in consequence of a former supuration of the middle ear, a persistent (dry) perforation remains in the membrane, as in these cases suppuration returns more easily than when the opening is closed by cicatrization."

Howell, a prominent English author, likewise "considers a remaining perforation, even with no discharge visible, with caution, on account of the danger of recurrence, especially if affections of the nose and throat be present." And again: "After unsatisfactory results of treatment, the application must be rejected, or accepted only with considerable addition of the premium. The duration of life in such persons is below the average. Some, indeed, die at a comparatively early age, either from the direct consequences of the local affection or from some wasting disease. (A point well taken.) It must be borne in mind that many years may elapse between the first appearance of a discharge from the ear and its fatal consequences in the brain."

Even in comparatively simple cases severe intracranial complications may suddenly supervene. As a general rule, the longer the disease has lasted the greater is the risk of bone complications, and hence the greater the risk of septic absorption. Fifty per cent of all brain abscesses are probably due to otitic disease, and 5 per cent of all cases of meningitis and two-thirds of all cases of sinum phlebitis are due to otorrhea. In round numbers, it may be said that one in one hundred fifty hospital deaths is due to otitic lesions. These few data out of a mass of statistics, together with the opinions of weighty medical authorities, must suffice to prove that suppurative diseases of the middle ear cannot be too lightly considered by life insurance companies. More and more the opinion of aural experts is asked for. The insurance companies will do well to introduce such a safe-

guard as a routine measure in their examinations of applicants for life insurance, for the difficulties in ascertaining the pathological conditions of the temporal bone, with its many recesses, are often very great, owing to the fact that its cavities are hidden from view; that a delicate examination with probes, with guidance of light, has to be resorted to, and that histological examination of granulation tissue, chemical examination of sediments in the discharge, and bacteriological examination of the same, must be made in order to reach safe conclusions; and even then there are cases—and these are referred to in this paper as "comfortably running ears"—on which a decision must be based on clinical instinct and experience, where, in the face of apparent security of patients in whom no bone disease can be detected, and medical treatment having failed, operative measures, ossiculectomy or radical operation must be resorted to.

Insurance companies should refuse risks, or at any rate advise their clients to have their ears attended to, and then apply again for insurance. Once more I would like to cite Sir William Dalby, for whose wisdom and practical tact I have a great respect. "When should the radical operation be performed?" he asks. Having stated four indications accepted by everyone at this date, he said: "Fifthly—In a certain proportion of patients with intractable otorrhea, in whom no bone disease can be detected, and in whom no history of ominous symptoms can be obtained. It is in the last two classes that the opinions of experts may be expected not to be in agreement, and these are the cases which are so very difficult to determine, and which have been most aptly compared to slight cases of appendicitis in which the question of operation is under discussion."

A few facts seem to stand out fairly well:

First—That the life insurance companies should possess statistics of their own upon which to guide them in their accepting or refusing risks of patients afflicted with otorrhea.

Second—That they consider cases of otorrhea with slight discharge, *if persistent*, as dangerous, even in absence of ascertainable bone disease.

Third—That high medical authorities agree with that apprehension, and warn against looking upon odorless discharges as harmless.

Fourth—That even a dry perforation forms a handicap, inasmuch as such an ear will discharge more easily on slight provocation, especially if trouble is present in the naso-pharynx.

Fifth—That a history or presence of tuberculosis in an individual at once renders the prospect of a case more unfavorable, but should not prevent, if the ear trouble be of a tubercular kind, dealing with it in a thorough surgical way.

Sixth—That while an occasional death, once in a very long while, may occur after a surgical operation performed on the ear for the cure of an apparently slight affection, the great majority of cases of running ears will become dry, and remain so; and even those comparatively few cases in which, after a radical operation or ossiculectomy, complete cessation of discharge is not accomplished, will, as Phillips aptly puts it, and as Macewen very strongly insists, be much better after than before the operation, for the discharge remaining generally is scanty and entirely different in character, without odor, and the drainage is so perfect and free that there should be no danger to life.

Phillips has been unable to find a report of any case of intracranial complications occurring subsequent to complete healing following a radical operation. It behooves us, then, to watch that, even in the apparently safe group of cases of otorrhea spoken of in this paper, the economy of the body should receive no serious injury.

Personally, I think that were we able to examine every crevice and nook of the intricate recesses and the labyrinthian path of the temporal bone, we would, wherever discharge of whatever kind is present, find a focus of bone disease.

With regard to the stand which recruiting medical officers take in cases of ear imperfection, I have met with but scanty information. In our own country, according to Greenleaf, who is a guide to the medical department, the discharge of matter from the ear is generally an evidence of a diseased condition of the parts within, which is very likely to lead to permanent deafness, and is therefore a cause for rejection. In seems, then, that deafness, according to the military authorities, and not the discharging ear, with its possible complications, disqualifies a recruit from entering the service. Colonel Girard of the military service here, was kind enough, also, to tell me that a deficient drumhead and a lack of patency in the eustachian tube excludes recruits from artillery service.

Barr, a good Scotch author, asks the question: "Are sufferers from chronic discharge from the ear fit for military service? When there is considerable tendency to acute inflammatory attacks, in the case, which would incapacitate a soldier for duty, the fluctuating condition of the hearing, and the possibly serious consequences to life itself, it would appear proper, in the interest of both the individual and of military efficiency, to exclude persons suffering from this disease from such a life of exposure as that of a soldier in the field."

In the German army men suffering from discharging ears of any kind, with a measurable disturbance of hearing, are excluded from service, if treatment has proven unavailing; and even those who enter service after their middle ear disease has been cured and there is a scar in the drumhead, are carefully watched, and do not take part in the swimming instructions.

THE SURGICAL TREATMENT OF CHRONIC NEPHRITIS.*

By J. HENRY BARBAT, M. D., San Francisco.

SINCE Edebohls published his first paper on the surgical cure of chronic nephritis there have appeared a large number of articles bearing on the subject, proving that any and all diseases of the kidneys are amenable to surgical treatment. No attempt has been made at classification, and I find it a hopeless task to determine in most cases whether the patient was suffering from true chronic nephritis or merely from backache. That there is some virtue in surgical interference for the relief of renal disease we cannot deny; but, like all new procedures, it has been used promiscuously, without, in many cases, first making a diagnosis of kidney disease. Undeserved credit has been given the operation which often properly belonged to rest in bed, diet and hygiene, which are known to influence chronic nephritis beneficially.

While the disease has sometimes been found to be focal in character, we cannot accept the statement that only one kidney is involved in about 50 per cent of patients operated upon, because in a long list of autopsies on those who had died of nephritis, it was noted that the disease was bilateral in all cases, and only occasionally was one kidney more affected than the other. If we accept Ferguson's dictum that all cases of floating and tender kidneys are interstitial nephritis, then we can easily conceive of unilateral disease, because we seldom find both kidneys movable and tender.

I have had but one patient in whom I decapsulated the right kidney for chronic diffuse nephritis of ten months' standing. The urine before the operation

*Read before the San Francisco County Medical Society.

contained varying quantities of albumin, large numbers of granular and hyalin casts, and averaged thirty ounces a day. There was edema of the lower extremities. After operation, which was done under spinal cocainization, the albumin and casts disappeared, and the amount of urine increased to fifty ounces per day. I had intended to decapsulate the other kidney, but the patient declined, because she felt so well. I believe that the benefit in this case, as in a large number which have been reported, was due to the rest in bed, dieting and hygiene, because shortly after leaving the hospital the edema and albumin returned, and she sought other medical advice.

A study of the pathology of chronic nephritis explains the manner in which operative measures may produce temporary relief in some cases. The patients in whom we may look for benefit are those whose kidneys are congested, where the disease process is focal in character, or where the pressure produced by the disease prevents the functionating portion of the kidney from acting. It has been shown in cases in which the kidneys are soft and friable, where there is no congestion, where the capsule is not tense, that no benefit will result from *any* operative procedure.

How do operative measures relieve chronic nephritis? Edebohls tells us that it is due to the establishment of collateral circulation. This has been positively disproved, not only by animal experimentation, but by the examination of several hundred sections of human kidneys, in two cases of which the organs had been removed some time after their decapsulation for chronic nephritis. My belief is that benefit is obtained simply by relieving pressure and producing drainage. Simple incision of the capsule, or even nephropexy, if the kidney is movable, will relieve the venous tension, and by allowing freer return of the venous blood, internal pressure on the still functionating portions of the kidney is lessened and a temporary improvement takes place. The obstructed tubules are washed out, the amount of urine increases, the albumin decreases, and the excretion of urea may approach or even exceed normal. The beneficial results in true chronic nephritis can only be temporary, because it has been proven that within a comparatively short period a new and thickened capsule is reproduced which will certainly cause a return of all the previous symptoms. Furthermore, we must consider that in all cases of chronic nephritis we have, besides the kidney lesion, grave changes in the blood which tend to augment the already existing renal disease. Kidneys which have not yet undergone degenerative change may, by a timely operation, resume their normal function; but we cannot conceive of the restoration of function of glomeruli or tubules that have been obliterated by disease; nor can we expect to find tissues that have undergone fatty degeneration resume their original form.

Where arterio-sclerosis and consequent hypertrophy of the left ventricle exist, operative measures cannot stem the progress of the disease, nor renew the rapidly expiring lease of life.

With regard to the choice of operation, I believe that decapsulation alone or combined with incision of the kidney will meet any indication calling for surgical relief in chronic nephritis, except in cases of movable kidney, where it is necessary to anchor the organ by any of the recognized methods. It is well to remember that the amount of albumin, or of urea excreted, or the number of casts present in the urine of a patient does not always indicate the amount of destructive change which has taken place in the kidneys. The time factor plays an important part in this connection, and it is important to determine as near as possible the length of time that the disease has existed. The more recent the disease the better the prospect of improvement.

The operative technic is not very difficult, but requires liberal incisions in order to operate rapidly, as patients with chronic renal disease do not bear long operations well. If the condition of the patient permits, it is better to operate on both kidneys at one time, two operators working simultaneously.

Spinal analgesia should be employed in the majority of cases, owing to the danger of administering a general anesthetic. The incision should be made from the lower border of the last rib to the crest of the ilium, and the kidney delivered; the capsule is then incised from top to bottom and torn from the kidney. In contracted kidneys it will be advisable to incise the kidney directly through into the pelvis, being careful to make the incision about a quarter of an inch behind the median groove. This incision passes through very few large vessels, but should be packed with gauze to prevent too free oozing at first. If the kidney has been movable the capsule should be used to anchor it in position by sewing it to the lumbar fascia. In cases where it is difficult to deliver the kidney as a whole, we can deliver the upper pole first, and, after splitting the capsule transversely, decapsulate; the kidney is then returned and the lower pole delivered and decapsulated. The complete excision of the capsule as practiced by a number of French surgeons offers absolutely no advantage over its retention, and in cases of movable kidney is rather a disadvantage.

From a careful review of the literature on the subject I have formulated the following conclusions:

Surgical measures do not cure chronic nephritis of any variety. Temporary relief may be obtained in some cases by decapsulation and incision of the kidney.

The cases in which relief is most marked are those in which pain in the kidney is a prominent symptom.

To obtain the best results in chronic nephritis, the wound should be left open after decapsulation and incision.

No relief can be expected when extensive destructive changes have taken place in the kidneys.

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Improper Use of Wood Alcohol.

Reports are rife that wood alcohol is being used by unscrupulous pharmacists in the manufacture of flavoring extracts, tinctures of iodin and arnica, and spirits of camphor. Six samples each of tincture of arnica and spirits of camphor were examined for wood alcohol as well as for iodin content. As for iodin, they were uniformly good, but two of the samples contained only the methyl spirit as a solvent. —J. O. Schlotterbeck, in *Druggists' Circular*.

UNITY OF THE MEDICAL PROFESSION.*

By EDWARD ULRICH, M. D., San Jose.

IF WE should claim that unity means a oneness of opinion in the practice of medicine, or a conformity to one method of treatment, or to a sameness in the application of medical means to restore the abnormal conditions of the human body, then I feel sure that we shall never see the day when *such* a unity has come to bless the medical brotherhood, for things would have to happen to bring about such a condition of thought and action, which are beyond our present comprehension.

But if we mean by unity of the medical profession, the manifestation of a desire to agree to disagree on *a great many points*, and to allow each other free scope of individual thought, and to use and to apply to the best of our knowledge and ability, gained by a thorough medical education and experience, that is, thus to use and to apply the means we possess to cure the diseased and to alleviate human suffering, then there is a very fair possibility that even some of us gray-headed ones may live to see the day and a condition of affairs among medical men which call to our mind the words of the sweet singer of Israel when he says: "How good and how pleasant it is for brethren to dwell together in unity." Or to make it a little more practical so as to apply to the case in hand: How good and what a blessing it is, both to themselves and to the sick ones, that the medical men have joined hearts and hands in these endeavors to meet the responsibilities and fulfill the mission of their grand calling.

When that day has come, some wonderful changes in the hearts and minds of the practitioners of medicine will have taken place, for thereafter they will be known as physicians only, because their former names will have died, and will have been buried by common consent, and on the tombstone we shall read the following inscription: "Dead and buried, and may he never see a resurrection, for he was the cause of great contention, but over his carcass noble men, men with big hearts, men interested in the well-being of the human family, have joined hands and have become a noble brotherhood, bearing the name, *Physicians*."

A great and glorious law shall govern them in their relations to each other, and in the treatment of each other, the law of *honest, sincere* endeavor to assist one another to accomplish the end of their great calling.

I have no prophetic gifts, but tonight I wish I had, also the power to roll aside the mist hanging over the coming fifty years, so that I could see and proclaim unto you the facts of this event and to tell just how and when it is to be accomplished. But I have a right to form and express an opinion based upon my experience of the past and by my observation of present conditions and indications, and they lead me to think that the fulfillment of this event is near, and, like the morning star, rising on the horizon.

Allow me to give you a few reasons for my views.

Great changes have taken place, and that for the better, thank God, in the different medical institutions. Greater are the demands for a higher standard of scholarly attainments of medical students to matriculate. Greater efforts are made by all such institutions to more thoroughly educate and train students in the art of healing. In looking over the catalogues sent to me by the different medical institutions, I find that the courses of studies are not only far better than formerly, but that they are more of a sameness than ever before. I look at and think with reverence and appreciation of the achievement in the field of medicine and surgery wrought by the grand men of the old school, and I am glad and thankful that their knowledge, experience and writing have become the common property of all the schools of medicine of the present time.

Their works on Anatomy, Physiology, Surgery, Bacteriology, Sanitary Science, Diagnosis and so on, are not only found on the shelves of every medical library and in the hands of every aggressive physician, no matter what the name of his Alma Mater may be, but they are the text-books in all the medical colleges. Thus the students of medicine are sitting today at the feet of the same masters, and their courses of study and instruction are so nearly alike that I think that I have a reason to believe that men thus trained in medical science will, after graduating from their own schools and after passing the State examination, be fully satisfied that they are well qualified to enter the medical profession and to be trusted in their confidence and in their consultations.

This will be a great stride toward unity. We often hear the expression that the Sunday-school and the young people are the seed and hope of the church, and we have a right to look to our young graduates who are well qualified for the work before them to be the ones to come into a closer union, to have more confidence unto each other's ability simply because they know that none but those who could and did pass college and State examinations have a right to practice medicine.

Again, we find that several of the State medical societies have laid down the bars which divided and prevented men of different medical schools and practice from meeting with each other in consultation; whereas, now they will do so with anyone who is a graduate of a college of legal standing and recognized to be a well-qualified physician. If I look back ten or fifteen years I can see a wonderful difference and change in the feelings and deportment of the medical men of the present day.

The causes of their different opinions of each other's method of treatment have been rounded and many obstacles have been removed, and men known for their ability and success in their practice are even now looked upon and honored as physicians worthy of confidence.

Thus one obstacle after another will be removed; the men of the present time begin to know each other better and to meet each other with less prejudice and more confidence, while the young graduates will be free from all such and will look upon each other as well-qualified *Physicians*, and among them Unity will become the watchword.

* Read at the banquet of the Santa Clara County Medical Society, San Jose, October, 1904.

ODOR HUMANE.*

By CHARLES ANDERSON, M. D. Santa Barbara.

IT HAS long been recognized that man, in common with his fellow-creatures, has his distinctive odors; I say odors, for it seems that each race has its own distinctive odor, which is characteristic of that particular race alone. With animals of the lower order the odor is characteristic of the particular kind of animal alone. The odor is carried by the fatty component of the perspiration, the watery portion seemingly being free of smell of any kind. This follows the rule of the vegetable kingdom, the essential oils universally carrying the odor of the particular plant, while the sap that is free of oil has no odor whatever.

Dr. Buttura Adacki, a Japanese physician, has lately published a paper on the disagreeable odor that Europeans give off. He ascribes the fact that Europeans give off disagreeable odors to the fact that they are meat eaters, and he takes the ground that Japanese and Chinese are odorless because they are vegetarians. Dr. Adacki's grounds are not well taken. (1) Because the odors of the Caucasians are not due to the food they eat; and that (2) Orientals are not odorless; and that (3) a vegetarian diet does not affect the odor of a race, but as will be shown, at least one race that subsists largely on a vegetable diet has the strongest known racial odor.

With your permission I will now refer to a few well known examples, and such that can without much trouble be verified. To those of us who have lived in the south or southwest, where there are numbers of

* Read before the Santa Barbara County Medical Society, October 12, 1904.

negroes, the smell given off by members of that race will be remembered as being characteristic, very perceptible and not altogether lovely to the olfactory organs of members of our race. This is so well known that it need not be discussed or explained. The well trained negro house servant is as cleanly, if not more so, than the average white servant; and the odor is as strong as that given off by the cotton-field "nigger."

Another race odor that has long been known and recognized as characteristic is that of the American Indian. Frontiersmen and Army officers who were formerly constantly thrown with them, ascribe the odor to the fact that they lived in smoky teepes and dressed to a great extent in buckskin and other skins. This explanation seemed plausible and was accepted as a fact. But the Indians of Arizona, the Apache, the Yuma and the Mojave, who live out of doors most of their lives, and who never dressed in buckskin, and in fact until a few years ago went mostly *au naturel*, have the identical odor of their northern brothers, the Utes, the Shoshones and the Sioux.

New arrivals on this coast, when first thrown with Chinese servants, almost without exception express great objection to the odor they find about the house and try to correct it by opening doors and windows, not recognizing the origin. After a week or two they cease to perceive the peculiar scent and imagine that they have got rid of it by ventilation, when as a matter of fact they have simply got used to it and no longer notice it. While the odor of the Oriental is not so decided as that of either the negro or the American Indian, it is as distinctive and as universally present. The Philippino has it, and when a number are congregated it is very perceptible. It is not to be mistaken for the universally present smell of coco oil that the women use on their hair; but it is a distinct body smell, and by no means pleasant. In Nagasaki, in the great bazar and other places where numbers of Japanese gather, an odor almost identical with that in the churches and markets of Manila, was present. Probably because these two people belong to the same race—the Malay.

No doubt the Caucasians have their own odors that as a rule are not discernible by us, but can be distinguished by members of other races. No doubt, also, a few of our own race who have particularly discerning olfactory organs, can distinguish different families of the race. One of my preceptors, the late Dr. Samuel B. Turney, used to declare that if he was taken blindfolded into a crowd, he could without fail tell every German or Irishman he would meet, just by the smell. At that time I did not think it possible, and used to joke the doctor about his alleged ability to distinguish an Irishman from a Dutchman in the dark, and told him it was only the difference between the smell of potatoes and kraut. The doctor always maintained that it was by a distinct racial odor that was always present, and unaltered by other conditions.

The theory that meat-eaters give off a stronger odor than the vegetarian is hardly borne out by the facts. The negro of the south is largely a vegetarian, his diet being made up mostly of cornbread and sweet potatoes, with a little bacon, for the most of them are too poor to buy much of that which is to them a luxury. In summer his diet is reinforced by "roasting-ears" and watermelon. The newspaper talk of his living on yellow-legged chicken and possum is a myth, and a very old joke that dies hard. The negro who lives in the north and who has more of a meat diet, is no stronger in his body smell, if as much so. The Orientals live mostly on rice and fruits, with a little fish, and yet their odor is very perceptible and persistent, in spite of the fact that they are fond of the bath and use it almost to the extreme. That the odor of the European has anything to do with his meat eating propensity, there is nothing whatever to prove. At one time one of my neighbors who was a strict vegetarian (to such an extent did he carry it that he would neither eat eggs nor drink milk) had a stronger body odor than any of the laborers working on his place. He was a refined, educated gentleman, who had traveled widely and read much; he was never without his bath and used it constantly.

Butchers and poultrymen who are supposed to use meat habitually and in large quantities have so far as I have been able to observe no stronger body smell than other men, nor has it been alleged that the employees of the larger packing companies (who live on meat and are surrounded by the odor of flesh, the air they breathe being laden with particles of it, their clothing often being saturated with it) can be distinguished by any stronger elemental scent than their fellow citizens when they are washed up and have their Sunday clothes on; and I doubt if the most sensitive olfactories can tell them from the strictest vegetarians.

The phase of the Odor Humane that is most interesting to us physicians, however, is the characteristic odor given off by different diseases. Many have long been well known, while others are not so well recognized and are doubted as being characteristic. Measels is said to have in some epidemics a decided picked-goose smell. The mousy smell that is occasionally present in typhoid fever, is sometimes said to be found also in the early stages of gastro-enteritis. Typhus fever is said to have a strong sickening smell not unlike ozena, but so peculiar is it, that once smelt it is never forgotten. Bad cases of confluent smallpox I have been told have an odor that closely resembles roasted rotten onions, but as I am not acquainted with that smell I do not think that I could identify that disease by my nose alone. The sour disagreeable smell of acute rheumatism I suppose is well known to most of us, and all too well to some. In the days before antiseptics the smell of gangrene was unhappily too well and widely known in every surgical ward the world over, and the kindred smell of pyemia was also too often there too.

Of all the characteristic odors of surgical wards of the older hospitals, that of breaking down carcinoma was the one that along with gangrene brought gloomy looks into the face of the surgeon and sorrow to his heart. This is a branch of clinical study that may well be elaborated with great good to the busy practitioner, as it may be made a great help in diagnosis in doubtful cases when there is no time to wait for the authoritative dictum of microscopic and test tube.

Our Wonderful "English."

The following choice morsels have been taken from the editorial pages of three medical journals in the past month. They go to show to what extent the frightful German idiom has been grafted into our "Surgical English," and how medicine has caught the contagion. If this "Surgical English" contagious disease has a family, the San Francisco Board of Health ought to send it a copy of the wonderfully valuable treatise called "Health Hints for the Household," published for the benefit of the "families of contagious, infectious or communicable diseases."

"Called to a **case** whose symptoms portend contagion." Now the dictionary defines "case" as a state, or condition; how can one apply "whose" to such an impersonal thing as a "state"?

"A 100 grm can of ether, by the Witzel method can keep the majority of **cases** under one hour." How can one keep a condition under for one hour—or any other amount of time?

"Not that such **cases** do not become pregnant and bear children." They certainly do seem to, and the children are more monstrous than the parents!

COMMUNICATIONS.

DRUGGIST AND PHYSICIAN.

To the Editor of the STATE JOURNAL:—In a recent issue of your valued publication a correspondent endeavored to make it appear that the activities of the National Association of Retail Druggists were inimical to the interests of the medical profession. He says of our Association:

> It is trying to help the retail druggist. In doing so it has promulgated the doctrine that no wholesale druggist shall sell medicines to physicians, and that physicians shall not put up their own prescriptions if they want to. Is it not time for the medical profession to organize and have drug stores established where nothing is sold but medicines and remedies actually prescribed by physicians?

This statement by your correspondent gives a false view of the work undertaken by the N. A. R. D. as it relates to physicians, and I am sure you will grant me enough space to correctly state our position. It is the policy of our great organization to promote the closest possible co-operation between pharmacists and physicians. We believe that the pharmacist should be protected in his legitimate sphere of activity, and that the physician is entitled to equal protection in his; and to that end we feel that no physician who desires the co-operation and support of the pharmacist can consistently dispense his own medicines; neither will a pharmacist who courts the friendly interest of his physician neighbors be foolish enough to engage in the practice of counter-prescribing.

It may be of interest to your readers to know that our organization department is making converts daily among physicians and druggists to the association's "give and take" plan that is so effectually uniting the two professions in bonds of personal and professional unity and good-will. Local associations of pharmacists and local medical societies, under the inspiration of the N. A. R. D. teaching, have been induced to confer with each other and to meet and banquet together, and the physicians are in every instance as well pleased with the result of this liberal and just policy as the pharmacists. Let me quote one of our correspondents, who in the November 26th number of our official publication, *N. A. R. D. Notes*, says:

> Stand by the doctors through thick and thin. Show the doctor that you are his friend. Inquire after his patients; always have a pleasant word for him. Discuss with him his side of the fence a little. I assure you that this taking him by the hand (figuratively) and saying: "Doctor, let us be sworn friends; we are dependent on each other, and as long as we have to play in the same yard, let us make our mud pies without throwing mud on each others cloths", is a success. That's the way we play down here.

This correspondent reflects the N. A. R. D. sentiment perfectly. I could quote *ad finem* from the printed files of *Notes* and from the correspondence files at national headquarters; all these expressions breathing the same spirit of co-operation and goodwill toward their brethren in the medical profession. In conclusion, let me quote from Dr. L. Park Drayer, a practicing physician at Fort Wayne, Ind., who is not identified in any way with pharmacy, and opposes the practice of dispensing by physicians for the following reasons:

> First. He is a physician and not a pharmacist.
>
> Second. His time with a patient must, if it results in the greatest good to the patient, be devoted to the diagnosis and treatment of his case.
>
> Third. He is not a merchant or a vender of material things.
>
> Fourth. He cannot devote a proper amount of time to the preparation of active and reliable drugs and do a general practice successfully.
>
> Fifth. His drugs of necessity must deteriorate.
>
> Sixth. He falls into routine ways prescribing pills, the formula of which was studied out with some one else's brains, and many times too often does not fill the bill.
>
> Seventh. He is apt to employ cheap remedies in preference to the better quality of pharmaceutical preparations.

Respectfully submitted,

CHARLES M. CARR.

Director Dept. of Publicity,

N. A. R. D.

Chicago, November 28, 1904.

WOOD-ALCOHOL POISONING.

To the Editor of the STATE JOURNAL:—A few days since, by presenting to the San Francisco County Medical Society a case of wood-alcohol poisoning, I have tried to draw local attention to a matter of public moment, as evinced by the attitude of the A. M. A. regarding the same, and the publicity it has received more recently still in the daily press on the occasion of the deaths of several persons in New York from the same poison. Its acute effects, however, in all probability do not by any means exhaust the possible dangers from methyl alcohol. As yet, nothing definite has been reported regarding consequences from its habitual use. A priori it would seem but natural to presume that, when taken that way, it might eventually attack the optic nerve, e. g., analogously to ethyl alcohol. Whilst the anatomically and clinically well-defined, axial retrobulbar neuritis, due to the latter, gives a fair prognosis, however, it is greatly to be feared that from methylated preparations such a process might not alone result much more readily, but judging by their acute effects, that it would also prove much graver prognostically. Evidently, so far, in the cases of chronic alcoholists the attention has not been directed to the practical value of finding out whether methyl or ethyl alcohol are consumed; in fact, I believe, from what I have heard since my own attention has been drawn to the point, that both agents may often be partaken of promiscuously. However, collectively, no doubt, the more specific role of methylic alcohol could be ascertained readily; in this connection also the habitual users of stomachica, such as methylated essence of ginger and other deodorized methyl alcohol preparations, need watching.

It is to be hoped that, now the attention of the profession has been called to the matter in its acute features so forcibly by Drs. Buller and Wood (*Journal of A. M. A.*, 1904, Nos. 14 to 18) data will soon be gathered regarding this additional aspect of it.

C. S. G. NAGEL.

SAN FRANCISCO AND THE QUACKS.

Very energetic work against the peace and quiet of the illegal practitioners in San Francisco is reported by the Executive Committee of that County's Medical Society. The methods pursued are worth the careful study of other county societies. The work is placed in the hands of the Executive Committee, who have power to retain the services of an attorney. The subject was laid before the Mayor, who decidedly approved of enforcing the law, and he wrote the following letter to the chief of police:

SAN FRANCISCO, November 18, 1904.

HON. CHIEF WITTMAN,—DEAR SIR: The San Francisco County Medical Society and the State Board of Examiners are making a determined effort to prosecute illegal practitioners of medicine. The object is a worthy one and commends itself to every citizen. I, therefore, send this letter to you, recommending that you detail a detective to take special charge of this work, and to work in conjunction with the officers of the San Francisco County Medical Society having this matter in charge. I am personally interested in this, and hope that you will give it your immediate attention, with a view to protecting the public against the scourge of charlatanism.

Yours very truly,

E. E. SCHMITZ, Mayor.

At the request of the Committee, the chief of police appointed one of the detectives, Mr. Matheson, to act under instructions of the Committee and to be at their disposal in getting evidence. The result of this simple and direct course is that complaints and warrants have been secured against every illegal practitioner in the city (about twenty-five) of whom the Committee has any knowledge. The complaints are signed either by Mr. Matheson or by some member of the Committee, and invariably are signed *for the Executive Committee of the County Medical Society.*

The weight of having the Society officially do this work cannot be overestimated. It then becomes a purely impersonal matter and must receive more attention than the complaint of a single person. All the Chinese "doctors" have been rounded up, and all those who can be located through the directory or the telephone book, or who advertise in the daily papers, are being gathered in. The Committee has retained the services of Mr. Wm. Maguire, Hayward Building, San Francisco, to prosecute this work, and it urges all physicians in the city to notify Mr. Maguire, or some member of the Committee, of the name and address of any illegal practitioners known to them. With the Society backing the work, and the mayor and the chief of police aiding in it, it ought not to take very long to clean up San Francisco.

The careful attention of the physicians of Los Angeles County is respectfully called to the work of this Committee. There is every reason why Los Angeles ought to clean itself up; a member of the Board of Examiners has dubbed it "the Mecca of the quack," and report is to the effect that he is about right. If county societies, as such, will take up the work, a great deal can be accomplished, for the weight of a body of physicians in any community is much greater than most men realize.

DRIESBACH SMITH.

Dr. Driesbach Smith, whose life work ended November 15, 1904, was a native of Ohio, born October 9, 1861. Dr. Smith was associated with Dr. John Robertson as assistant physician at the Livermore Sanitarium, and was for several years lecturer on nervous diseases at the Cooper Medical College, and in 1904 was elected professor of neurology in that College. For twelve years he was one of the medical staff of the Napa State Hospital for the Insane. His name is and must ever be inseparably connected with this great charity, as during these years a part, at least, of his best professional work was accomplished. A word of tribute to the memory of our departed friend may not be amiss, though there are times when silence would better express our feelings than many words.

So long as a single tower of the noble edifice where he spent so many years of his life shall point heavenward, so long as a ray of memory shall flash across the darkened mental horizon of such afflicted people, so long as mental alienation and nervous diseases shall be the subject of investigation and its unfortunate possessors the objects of kindly care and treatment, just so long will the name of Dr. Driesbach Smith remain unforgotten.

A. M. GARDNER.

DAVID AND GOLIATH.

We thought last month that if the Trustees of the American Medical Association read the CALIFORNIA STATE JOURNAL OF MEDICINE, they would sooner or later begin to feel that someone was talking about them, and that it might be incumbent upon some of them to reply. Our worst fears have been realized. The President of the Board of Trustees has come out in the open, and, like Goliath of old, has defied the apparently insignificant force who are fighting for what they esteem right and proper in medical journalism and in the conduct of medical organizations.

Let him take heed, however, for every Goliath sooner or later meets his David, and there is a David this very minute waiting for persons who indulge in unseemly boasting before the combat.—*The Journal of the Medical Society of New Jersey.*

Dr. Wm. Lemoyne Wills, of Los Angeles, married, at noon on November 23d, Miss Susan Glassell Patton. Dr. Wills' many friends in all parts of the State will undoubtedly be glad to learn the good news and wish him a long life and a happy one.

RESOLUTIONS REGARDING ADVERTISING.

On November 26th there was held in San Francisco a conference of the Council, officers and a number of Delegates of the State Society. A number of questions were discussed at this time, but no action was taken on any particular one of them except the passage of the following resolutions:

Whereas, The Principles of Medical Ethics promulgated by the American Medical Association wisely state that "It is derogatory to professional character for physicians to prescribe or promote the use of secret remedies." And

Whereas, Advertising secret remedies in the pages of medical journals is considered to promote their use; and

Whereas, A remedy is well defined as "Any agent or substance used in the treatment of disease", and such a remedy is a secret remedy unless its exact nature or composition or the quantities of its active ingredients are plainly stated in the advertising statements relating to such remedy; Therefore be it

Resolved, That the Council and officers of the Medical Society of the State of California, in conference assembled, instruct the secretary to respectfully call these matters to the attention of the Trustees of the American Medical Association, and request that they discontinue the practice of advertising secret remedies in the pages of the *Journal of the American Medical Association*, of which journal we are, jointly with all other members of the Association, the owners. And we further request that the Trustees in the conduct of our said journal—the *Journal of the American Medical Association*—apply the rules adopted by the Association at its last meeting, as recommended by the special Committee on Proprietary Remedies, governing the rejection of advertisements submitted for publication in the journal of the Association, which rules are as follows:

Articles to be Refused Admission.

1. Medicinal articles of secret composition:
2. Articles for internal medicinal use advertised, or in any manner exploited, as remedies or cures to the laity:
3. Medicinal articles of known composition whose formulæ do not give the exact quantities of the active medicinal agents and their names in recognized scientific terms:
4. Articles with trade names, without the true scientific chemical name, or if mixtures or pharmaceutical preparations, without a pharmaceutical title which describes its pharmaceutical character and the principal active ingredients.

We also respectfully ask that the Trustees call the attention of the members of the Association, through the editorial pages of the *Journal*, to that portion of the principles of ethics herein referred to, and the desirability of living up to it and of refraining from the use or promotion of secret remedies.

Additions and corrections to list of Legislators, published in December JOURNAL:

Senators.

Bauer, Hamilton A., 22d Dist., 1838 Geary st., San Francisco; Bunkers, Harry, 18th Dist., 1923 Mission st., San Francisco.

Coggins, Clifford, 2d Dist., La Moine; Curtin, J. B., 12th Dist., Sonora.

Diggs, Marshall, 6th Dist., Marysville.

Emmons, E. J., 32d Dist., Bakersfield.

French, Frank, 20th Dist., 230 Duncan st., San Francisco.

Hahn, Benj. W., 36th Dist., Pasadena.

Leavitt, Frank W., 16th Dist., 174 10th st., Oakland.

Pendleton, C. W., 38th Dist., Los Angeles.

Ralston, W. C., 10th Dist., Melones; Rowell, Chester, 26th Dist., Fresno.

Sanford, J. B., 4th Dist., Ukiah; Savage, Wm. H., 34th Dist., San Pedro; Shortridge, Chas. M., 28th Dist., San Jose.

Ward, M. L., 40th Dist., Chula Vista; Woodward, E. F., 8th Dist., Santa Rosa; Wright, Eli, 27th Dist., San Jose.

J. H. Krumminger (a), Los Angeles should have been J. H. Krimminger; Edw. F. Whitney (a), Nevada County, Edw. F. Whiting; W. J. Windham (a), San Francisco, W. J. Mindham; F. A. Cronwell (a), Sonoma County, F. A. Cromwell.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) from the Register information as published. Hereafter each issue of the JOURNAL will contain the changes received from the 15th to the 15th.

Changes of Address.

Beebe, J. L., from add. unknown to Lower Lake, Lake Co., (Anaheim, Orange Co., after January 1, '05); **Besson, Ed. A.,** from 944 Post st. to 406 Sutter st., San Francisco; **Burlew, Jesse M.,** Santa Ana, Cal.

Condory, V., from 102 Spring st., Seattle, Wash., to Nome, Alaska; Conran, P. J., from 872 Mission st. to 1095 Market st., San Francisco.

Edwards, Wm. A., from Isabella ave., Coronado, to Braly Bldg., Los Angeles.

Gerson, T. Percival, from 929 S. Main st., to 1621 Ingraham st., Los Angeles.

Haynes, J. R., from 929 S. Main st. to 411 Hellman Bldg., Los Angeles.

Maddock, L., from Austin, Texas, to Stockton, Cal.; Mills, John M., from 944 Post st., San Francisco, to Watsonville, Cal.

Phipps, Charles, from 520 Ellis st. to 827 Haight st., San Francisco; **Pressley, James F.,** from 606 Sutter st., to 135 Geary st., San Francisco.

Richter, L. M., from add. unknown to Garvanza, Los Angeles Co., Cal.

Sullivan, W. H., from Colusa to Hopland, Mendocino Co., Cal.

Weddle, Chas., from add. unknown to Kingsburg, Fresno Co., Cal.; **Wells, Geo. F.,** from Boonville to Geyserville, Cal.

New Names.

Hartley, J. D., 2010 N st., Sacramento, Cal. Med. Dept. Univ. of Mich., March, '73. (C) Dec. '81.

Houston, E. C., Bieber, Cal. Louisville Med. Coll., Ky., Feb. '88. (C) Sept. '96.

Houston, Elizabeth H., Bieber, Cal. Mich. Coll. of Med. and Surg., Mich., March, '95. (C) Dec. '96.

Shorb, A. S., Grant Bldg., cor. 4th and Broadway, Los Angeles. Pulte Med. Coll., Cinn., Ohio, March, '79. (C) June, '82.

Fulton, Dudley, 310 Douglas Bldg., Los Angeles. Jefferson Med. Coll., Pa., May, '99. (C) July, '01.

New Members.

Burlew, Jesse M., Orange Co. Med. Soc.; **Chase, R. E.,** Los Angeles Co. Med. Soc.; **Fulton, Dudley,** Los Angeles Co. Med Soc.; **Gerson, T. Percival,** Los Angeles Co. Med. Soc.; **Herbert, Henry,** Los Angeles Co. Med. Soc.; **Johnson, Walter S.,** Los Angeles Co. Med. Soc.; **Kaelber, Arthur P.,** San Francisco Co. Med. Soc.; **Shank, Geo. A.,** Orange Co. Med. Soc.; **Stearns, W. H.,** Los Angeles Co. Med. Soc.

Deaths.

Palmer, W. E. Spokane, Wash.; Pollatschk, Jacob, San Francisco.

Rogers, S. J. S., Marysville.

Taylor, Wm. Osborn, San Francisco.

Welch, J. Milton, Los Angeles.

Add. Unknown.

Davis, F. J., add. unknown (letters returned).

Findeisen, R., add. unknown (letters returned).

Parker, E. G., add. unknown (letters returned).

New Licentiates.

The following candidates were granted certificates at the last examination:

Ainley, L. T., Bell, H. D., Boyd, Frank P., Brownsill, Edith S., Condit, John Christy, Hanchett, J. C., Hollingsworth, R. B., Irwin, Wm. Hayes, Johnston, Wm. R., Kankel, O. W., Kerby, Clinton, Jr., Lashlee, Claude Harman, Lemke, August F., McCracken, Robt. E., McMillan, Edwin Harbaugh, McMurtry, Melton S., Miller, Geo. L., O'Brien, Jas. W., Powell, Chas. S., Reid, Robert S., Rooney, H. M., Starbird, Geo. A., Swindt, Jos. K., Wilson, Gustave (H).

JAPAN'S LESSON TO US.

The Japanese authorities permitted our Government to send five military attaches to accompany their army in the field. Was a surgeon or a quartermaster or a commissary officer detailed? No. They represented the life-saving and life-preserving departments and were omitted. The killing departments got the appointments—the cavalry, ordnance, infantry, etc.—and to-day Japanese officers are laughing in their sleeves at our senseless failure to have representatives on what they consider their three vital points, while the only weak feature of their army, its cavalry, is considered worthy of special study. Certainly "it is to laugh." But what can be expected of a Government that after its terrible lessons of 1898-99 still insists—especially in the tropics—of subsisting its army on a ration so rich and elastic (lovely term, that elastic), so elastic that when in the emergency of war its elasticity is tested, it bursts its bands, and is found to consist of pork and beans and fermenting canned rubbish that in six weeks prostrates 50% of its 250,000 units with intestinal diseases, and sends 3,000 to their last homes, to say nothing of the enormous number of invalided and the 75,000 pension claims? That in its famous reorganization fails utterly to recognize one of the most important of all the departments, namely, that of sanitation, as it is recognized by the Japanese to-day? That holds its great life-preserving department in such light esteem, that but one officer in the entire army can even reach the rank and emoluments of a brigadier-general? That on its general staff fails to have a single representative of this department, and if any, only a young, inexperienced man of inferior rank, instead of the ablest and most experienced officer in or out of the service, one of international reputation like our retired Surgeon-General Sternberg, whose rank should not be less than that of a major-general, and whose opinions would carry weight in councils of war?—*Literary Digest.*

National Quarantine Law.

It is desirable to enact a proper national quarantine law. It is most undesirable that a State should on its own initiative enforce quarantine regulations which are in effect a restriction upon interstate and international commerce. The question should properly be assumed by the Government alone. The Surgeon-General of the National Public Health and Marine Hospital Service has repeatedly and convincingly set forth the need for such legislation.—*Theodore Roosevelt, in Annual Message.*

Electric Skin Grafting.

John D. Rushmore (*Annals of Surgery*, September) reports seven cases of skin grafting by the electric method, remarkably good results being secured. The surface and the grafts are prepared in the usual manner. The grafts are embedded in the blood of the raw surface to be covered, and a high tension or "static" discharge is then directed from a point to the surface until the blood is coagulated and the surface is dry.

COUNTY SOCIETIES.

Alameda County.

The regular monthly meeting of the Alameda County Medical Association was held in the Hotel Metropole Tuesday evening, December 13th. Thirty members were present.

Dr. A. Galbraith's name was added to our list of members.

Dr. W. A. Clark, Supt. of County Hospital, related the history of the following case of carcinoma of the stomach:

Carpenter, aged 57. History of chronic indigestion for past four years, accompanied by loss of weight and development of muscular weakness; no pain or vomiting. Two weeks previous to admittance to hospital patient noticed a tumor in epigastrium and this led him to consult a surgeon. Operation July 21, 1904, disclosed a large growth involving a part of the greater curvature and posterior wall of the stomach. A resection of the middle portion of the stomach was done, drainage established and the abdominal wound sutured. The wound was completely healed in sixty-seven days and patient was discharged from hospital. The present condition of the patient is good; he has gained sixteen pounds in weight and can partake of a very general diet without any distress.

The second paper was read by Dr. Smith on the subject of "Hemorrhoids." The doctor reviewed the etiology, pathology and symptomatology of this condition and described the various operations for its relief. Both papers brought out considerable discussion on the part of the members present.

The following resolutions were adopted:

Whereas, for the safety and welfare of the public an uniformly high standard of graduate nurses is indispensable; and,

Whereas, this standard can best be obtained by State registration of nurses and accrediting of training schools for nurses; and,

Whereas, the California State Nurses' Association has been laboring to bring about these desirable objects and has asked for our co-operation and support in the matter. Therefore, be it

Resolved, That we, the Alameda County Medical Association heartily endorse and promise our energetic support to the movement now on foot for a State registration and examination of graduate nurses, as incorporated in a bill now being prepared by the California State Nurses' Association; and that we earnestly request our representatives in the State legislature to vote for and energetically support the said bill; and that the Secretary of this Association be, and he hereby is instructed to mail a copy of these resolutions to the representatives of this and neighboring districts.

J. M. SHANNON,
A. S. KELLY,
Publication Committee.

Butte County.

The regular monthly meeting of the Butte County Medical Society was held Saturday evening, November 12th, at the offices of Dr. Moulton. Those answering roll call were: Drs. Stansbury, Gatchell, Hull, Perdue, Johnson, Musgrove, Spurgeon, Browning, and Moulton.

A communication was read from a practitioner in Gridley, Butte County, stating that a man named Dr. Gridley is now practicing medicine in the town of Gridley. It was referred to a committee on investigation.

A committee appointed to draft resolutions showing the society's views on compulsory vaccination met and agreed upon the following preamble and resolution:

Whereas, There is a movement started to repeal the law which requires all children to be successfully vaccinated before entering the public schools of the State of California; therefore, be it

Resolved, That the Butte County Medical Society unite with the other county societies and the Medical Society of the State in positively affirming the great need and utility of retaining the said law in force, as it is well established that vaccination properly done is not dangerous to health or life, and assuredly checks the spread of smallpox effectually in proportion to the percentage of the population that is scientifically vaccinated

THOS. W. MUSGROVE,
L. C. PERDUE,
B. F. SPURGEON,
Committee.

The paper of the evening was read by Dr. D. H. Moulton, on "Erysipelas." Much discussion followed, especially on the manner of treatment.

D. H. MOULTON, Secretary.

Orange County.

The Orange County Medical Association met in regular session, Tuesday evening, December 6th. Drs. Jesse M. Burlew and G. A. Shank were elected to membership. A committee was appointed to draft resolutions endorsing the resolutions adopted by the State Society in regard to ethical advertising, especially in the *Journal A. M. A.*

The secretary was instructed to notify the Orange County assemblyman and State senator that this society was unanimous in opposing alteration of the present State law regulating the practice of medicine, also that this society was in favor of compulsory vaccination.

Dr. J. I. Clark read the paper of the evening, the title being, "Proprietary Medicines." The Doctor condemned in emphatic terms the use of secret formulæ remedies by physicians. In the discussion, all agreed that the better plan was to formulate your own prescription to meet the needs of each individual case, and not to look to the manufacturing pharmacist to tell you what particular "shot-gun" combination to prescribe.

H. S. GORDON, Secretary.

San Francisco County.

The regular meeting for December was called to order by the President, Dr. Rixford, at 8:30 P. M., on the 9th. The first order of business was the presentation of annual reports. The Committee on Ethics reported that four charges, involving eleven members of the Society had been heard, and that all of these, with one exception, related to general conditions that are as yet rather undetermined. It recommended that consideration of such questions be continued, and the effort made to clear them up.

The Librarian reported that the library had been something more than doubled during the year, and now contains some 3,367 volumes. Twenty-nine hundred dollars had been spent upon the library during the year, and as much more should be expended during the coming year. A considerable part of this sum had been required for cases, etc. Donations to the library are earnestly requested.

The Secretary reported that there were 502 members, and that during the year 5 died, 5 resigned, 3 were dropped and 3 moved away; 112 new members had joined during the year.

The Finance Committee reported that the expenses of the Society during the year had exceeded its income by several hundred dollars, and the Society ought to economize in its expenses or increase its dues.

The Trustees reported that the balance last year was $7,256.98, and that $242.78 had been received as interest, and $2,964.00 drawn out.

The Treasurer's report agreed with the reports of the Secretary and the Finance Committee.

Dr. George Ebright presented some patients, with myxedema, and his remarks were discussed by Dr. D'Arcy Power.

Dr. R. D. Cohn read a paper on "The Operative Treatment of Laryngeal Polypi," in which he recommended the more general use of the electro-cautery.

Dr. Dudley Tait read a paper on "The Elastic Ligature and the Ligature Method; Historical and Experimental Data." Numerous specimens were shown. The paper gave a very full review of the work that has been done on this line of investigation, and reported the author's findings after a large series of experimental operations on dogs. His conclusion was that the method had a distinct field of usefulness, though a very limited one, and that it will be found to be a satisfactory surgical procedure within its limitations.

Dr. Harry M. Sherman opened the discussion on Dr. Tait's paper, and expressed himself as regarding it as one of *the* papers of the Society. The statements made by the author were clear, and the specimens which he exhibited demonstrated the truth of his statements. He thought the simplicity of the procedure must appeal to every one, and that it had many points to recommend it. The time required to produce anastomosis will preclude its use in many cases; in others its numerous advantages recommend the method.

Dr. J. Henry Barbat said that he had used the method only on dogs; he did not feel inclined to use it on men, for its field is too limited. He regarded with a certain amount of suspicion the reports of many eastern operators, for he believed that many of them operated on trivial and unimportant complications which the surgeons of this section of the country would not meddle with.

Dr. T. W. Huntington referred to the growth of all new processes and the gradual crystalization of the idea. He complimented the author very highly upon his work and his paper. He concluded from the matter presented that surgeons generally would not use the method as an ordinary proceeding.

Dr. Tait, in closing the discussion, agreed with Dr. Barbat in the opinion that many operators desired to report large numbers of operations, and so were rather inclined to operate when it was not at all necessary. In this country he thought surgery rampant, and much harmful work was being done.

The Chairman of the Executive Committee, Dr. F. B. Carpenter, reported on the work being done in the prosecution of quacks.

Dr. T. W. Huntington presented a bill which had been prepared by the nurses and which it is their intention to have presented at the coming session of the Legislature, creating a Board of Examiners, registration of nurses, etc., and moved that the San Francisco Medical Society endorse the application of the nurses to the Legislature, and aid them so far as possible in securing the law.

On motion, the Society endorsed the resolutions passed by the Santa Barbara County Medical Society, protesting against the repeal of the compulsory vaccination law, and referred the matter to the Committee on Public Health.

Notices were filed that at the next meeting motions would be made to appropriate $250 as a retaining fee for the Society's attorney, and $1,000 for the library fund.

The amendment to raise the dues to $10 per year came up for consideration and was defeated. There was some misunderstanding about it, however, and notice of a reconsideration was filed.

The Chairman of the Committee on Ethics, Dr. Geo. H. Evans, introduced the following proposed amendments to the By-Laws, and moved that their consideration be made the special order of business for 9 P. M. at the next meeting of the Society.

Amend the By-Laws as follows:

Article XXII to become Article XXIII.

By-Law passed May 10, 1904, beginning "It shall be contrary," repealed.

New By-Law, to be known as Article XXII, as follows:

No member of the San Francisco County Medical Society may use, or permit or allow his name to be used on or in connection with any advertising matter circulated, issued or presented to the laity by, or authorized by, any institution, organization or corporation. This By-Law shall not apply to advertising statements in official publications of County, State or National medical organizations, nor to the annual reports or announcements of medical schools, colleges, hospitals and benevolent societies.

The meeting then adjourned.

Sonoma County.

The meeting of the Sonoma County Medical Society was held on the evening of the 8th inst. in the office of the Secretary, Dr. G. W. Mallory.

Dr. Harry S. Delamere of Cloverdale (by transfer card from Humboldt County Medical Society) was elected to membership. Applications were received from Drs. Bruce Cockrill and E. A. Byron, and were referred to the Board of Censors.

We are now more than one year old, and have a membership of fifty-five out of a possible seventy.

The resolution sent to every physician in the County since our last meeting (November 13th) was passed.

Several speeches were made on "The Good of the Profession in Sonoma County," and at 11 P. M. the following officers were elected for the new year: President, Geo. Ivancovich; Vice-President, A. McG. Stuart; Secretary, G. W. Mallory; Treasurer, J. H. McLeod; Censor, S. S. Bogle (for three years).

We anticipate an interesting meeting January 13th, as the installation of the new officers will take place, and the work for the year will be outlined. The meeting will be held in Dr. Mallory's office, Santa Rosa, on January 13, 1905, at 8 P. M.

San Bernardino County.

The meeting of the San Bernardino County Medical Society was held on the 14th inst. The annual election of officers took place and resulted as follows: President, Chas. C. Browning; Vice-President, George H. Scott; Secretary, J. M. Hurley; Treasurer, Wesley Thompson.

San Joaquin County.

The regular meeting for November was held at the office of Dr. H. W. Taggart, who read a paper on "Surgical Shock." The use of ergot in the treatment of shock was especially recommended by Dr. Taggart. In a recent case of severe shock he had employed this drug, and found it exceedingly valuable in addition to other valuable remedies.

The next meeting of the Society will be held at the residence of Dr. H. E. Sanderson.

Drs. S. B. Davis, Minerva Goodman, Soltan F. Calhoun were elected to membership. The addition of these names to the roster gives the San Joaquin County Society an additional delegate in the House of Delegates in the State Society.

BARTON J. POWELL, Secretary.

Yolo County.

At the regular meeting of the Yolo County Medical Society, held December 6th, resolutions were passed endorsing the action of the council and officers of the State Society in adopting the preamble and resolution anent proprietary remedies.

A resolution was also passed, directed to the assemblyman representing this section, urgently requesting him to prevent any alteration of the present State Medical Law. Each member of the society was instructed to see our representative individually upon this matter.

W. E. BATES, President.

Grand Prize for Pharmaceuticals.

We are advised that the firm of Wm. R. Warner & Co., Philadelphia, have been awarded the grand prize, the highest award, at the St. Louis Exposition. We certainly congratulate them upon their success, and ourselves that an American manufacturer should receive the award.

MEDICAL SOCIETIES.

California Academy of Medicine.

Meeting held in San Francisco, November 22, 1904, the President, Dr. T. W. Huntington, being in the Chair.

"Resection of the Chest Wall for Recurrent Carcinoma of the Breast." Dr. Rixford exhibited a patient in whom a portion of the chest wall had been resected for recurrent carcinoma. The patient was seen on August 15, 1903, with a suppurating carcinoma of the breast, which tumor had been first noticed four months previously. After primary cleansing of the suppurating area with pure carbolic acid, a Halsted operation had been performed and the wound had healed without difficulty. Eleven months later there was a recurrence at the site of the original operation and the recurrent tumor was adherent to the chest wall. At a second operation this tumor was removed. It was necessary to excise portions of the first and second ribs and about half an inch of the left side of the sternum. The left pleural cavity was opened, the lung collapsed, and the respiratory movements of the mediastinum and heart could be plainly seen. The respirations became very rapid, but if the opening into the pleural cavity were closed by a hand or a towel the lung seemed to expand and the respirations became better. The wound was closed by a large skin flap. At present, five months after the second operation, there are no signs of a recurrence. The skin flap is drawn in at each inspiration. This is the fourth operation of this character which has been performed by the speaker. One of the others subsequently died of local metastases, one developed local nodules, which disappeared under X-ray treatment, and one other besides the one here exhibited has as yet shown no signs of metastases. The operation is only justifiable when the patient is in good condition and when there are no distant metastases. Dr. Barbat suggested the use of some form of artificial respiration in such cases, similar to that used in physiological experiments. The Sauerbruch pneumatic cabinet, if accessible, would find a place in these operations.

"An Unusual Case of Anemia." Dr. G. H. Evans and Dr. Mary Halton reported a case of anemia of the aplastic type. The patient entered St. Luke's Hospital September 21, 1903. Six years previously he had had "blood-poisoning" in the right foot, and three years previously he had lost his right eye in a shooting accident. About two months ago he had had a severe nose bleed and has had another less severe one since then. Physical examination showed a well-nourished, pale man, with systolic murmurs over the base of the heart and a large ulcer on the outer aspect of the lower part of the right leg. The blood showed 1,150,000 red corpuscles, 7,300 leucocytes, and 30 per cent of hemoglobin. A differential count of the white cells showed polymorphonuclears 6 per cent, small lymphocytes 91 per cent, large lymphocytes 2 per cent, and eosinophiles 1 per cent. No nucleated red cells were seen, and there was no marked poikelocytosis and no polychromatophilia. During his stay in the hospital he had several severe nasal hemorrhages, an irregular fever, and after gradually becoming weaker died about ten days after admission. Shortly before death his blood showed 770,000 red corpuscles, 2,300 leucocytes, and about 10 per cent hemoglobin. The differential count of the leucocytes did not differ essentially from the former count, except in the absence of eosinophiles. No parasites or eggs of parasites were found in the feces.

The autopsy and bacteriological findings were negative, except for the deposit of a pigment, giving the reaction for iron, in the liver, and a moderate enlargement of the hemolymph glands about the inferior vena cava. The spinal cord and the bone marrow of the long bones were not examined.

The case here presented may possibly have been a leucemia, with a reduction in the number of leucocytes. Such reductions have been observed during the course of acute infectious diseases, and one of the authors has seen it occur coincident with pregnancy. On the other hand, the case suggests pernicious anemia in many of its features; viz., the high color index, the marked reduction of both the red and white cells, and the autopsy findings. As has been said, no nucleated red corpuscles were found during life, but later, after a search through about half a millimeter of blood, two megaloblasts were found. The case appears to belong to the class described as aplastic anemias, which are in all probability cases of pernicious anemia without the customary regeneration of blood by the bone marrow.

Dr. Blumer reported a similar case of anemia which he had recently seen. During life the patient showed an irregular fever, a palpable liver, and bleeding hemorrhoids, with an ulcer in the rectum. The red corpuscles varied from 1,500,000 to 1,100,000; the leucocytes, from 4,600 to 3,400, and the hemoglobin from 20 to 19 per cent. Very few nucleated red cells were found, and these were either normoblasts or transitional forms. An average of several differential counts showed polymorphonuclears 7.5, large lymphocytes 2.3, small lymphocytes 90.2 per cent, and no eosinophiles. The autopsy showed in general the changes of pernicious anemia, except that the signs of regeneration in the bone marrow were very slight. He agreed with the preceding speakers in regarding this type of anemia as pernicious anemia without a reaction on the part of the blood-forming organs.

Dr. Brunn described a child who had enlargements of the liver, spleen, and lymphatic apparatus, with a marked anemia, and with 6,900 leucocytes, which were mostly small lymphocytes. The child died of a streptococcus angina.

Dr. Evans seems inclined to regard the last case as one of lymphatic leucemia, with a concomitant infection.

A. W. HEWLETT, Secretary.

The California Northern District Medical Society.

The meeting was held in Jeffersonian Hall, Marysville, November 15, 1904, and called to order at 3:00 P. M. by the President, Dr. A. M. Henderson, of Sacramento. Addresses of welcome were delivered by Dr. J. H. Barr, president of the local society, and by Dr. David Powell, chairman of the committee of arrangements. The President's annual address was upon "The Surgical Treatment of Malignant Diseases of the Pylorus," which was followed by a discussion by several members present.

Dr. T. W. Huntington of San Francisco an honorary member of the society, read an interesting paper on the "Early Operative Treatment of Hip Joint Disease," with a report of two cases. This was the most instructive and interesting paper which had been presented to the society in many years and aroused great interest among the members as to the future surgical procedure advanced by Dr. Huntington.

Dr. J. D. Dameron of Stockton presented a paper, the title of which was "Prostatectomy with Union by First Intention." The discussion on this paper was opened by Dr. David Powell of Marysville, followed by various members.

Drs. E. W. Wilder, of Sacramento, and C. W. Lund, of Wheatland, were elected members when the society reconvened at 8:45 P. M., after having partaken of a dinner tendered by the Medical Society of Yuba and Sutter counties.

Dr. W. J. G. Dawson, Superintendent of the Home for the Feeble Minded at Elldridge, presented a most interesting brain specimen with the history of a case of idiocy chronic hydrocephalus and epilepsy. Discussion on this paper was opened by Dr. E. W. Twitchell of Sacramento.

Dr. David Powell of Marysville presented a paper, the subject being "The Water and Milk Supplies of Cities Important Factors in the Sanitary Welfare of Every Community." The discussion upon this paper was opened by Hon. N. K. Foster, Secretary State Board of Health, followed by other members of the society. A letter was read from the Hon. George C. Pardee, Governor of this State, regretting his inability to attend the session. Reports of the Treasurer and Secretary were read and ordered placed on file, and the following resolution was presented and adopted:

Whereas, A bill has been introduced in the Senate of the United States by Hon. W. B. Heyburn, known as "The Heyburn Pure Food and Drug Bill," be it

Resolved, That the California Northern District Medical Society, in annual session at Marysville, California, November 15, 1904, heartily recommends the passage of said legislation, and earnestly requests our representatives in the United States Senate to assist in the passage of said bill; and be it further

Resolved, That a copy of these resolutions be forwarded to the Hon. W. B. Heyburn, the author of the bill, and to the Hon. George C. Perkins and the Hon. Thomas Bard, members of the United States Senate from California, and to the Committee on Medical Legislation of the American Medical Association.

An invitation was extended by Dr. Hogan to the society to meet in the city of Vallejo at its semi-annual meeting in June. The invitation was accepted.

The election of officers resulted in the following:

President, J. D. Dameron, Stockton; First Vice-President, J. H. Parkinson, Sacramento; Second Vice-President, J. J. Hogan, Vallejo; Third Vice-President, J. L. White, Sacramento; Secretary, E. E. Stone, Napa; Treasurer, O. Stansbury, Chico, Cal.

Board of Censors: W. E. Briggs, Sacramento; E. W. Twitchell, Sacramento; W. E. Bates, Davisville; John Fife, Red Bluff; E. W. Hanlon, Marysville, Cal.

Association of South Side Physicians.

The Association of South Side Physicians held its regular bi-monthly meeting Friday evening, October 28th, at Dr. W. F. Barbat's office, 1310 Folsom Street, with the President, Dr. A. Eichler, in the chair.

After the regular business had been disposed of, Dr. E. W. Thomas presented a patient with tubercular syphilide of the leg. Two photographic plates were exhibited, showing the condition of the leg after anti-syphilitic treatment without result. Under treatment with the Finsen ray the condition showed marked improvement.

Dr. Thomas next presented a patient with lupus erythematous of the face. After twenty exposures to the X-ray the condition showed improvement in many ways.

Dr. A. B. Spalding, who had been invited to attend the meeting, explained the purposes and methods of conducting the San Francisco Maternity Hospital, at 1217 Harrison Street, as there had been some misapprehension of the objects of the institution.

The next meeting is to be held Friday evening, December 16th, at Dr. W. F. Barbat's office, 1310 Folsom Street.

A. L. W. ZILLMER, Secretary.

Southern California Anti-Tuberculosis League.

The Southern California Anti-Tuberculosis League held its annual meeting at Pomona, on Tuesday night, December 6th.

Addresses and papers were given by Dr. F. M. Pottenger, President of the League; Dr. Rose T. Bullard, Secretary; Dr. Norman Bridge, Mr. R. W. Poindexter and Dr. Gayle G. Moseley.

The meeting was well attended, and it is believed that much good is being done by these public lectures.

Resolutions were passed favoring the establishment of a State Sanatorium for the tuberculous poor. (Similar resolutions were subsequently passed by the Southern California Medical Society, which met on the 7th and 8th of December.)

The annual election of officers was held, which resulted in the re-election of the present incumbents, which are as follows:

F. M. Pottenger, M. D., President; Rose Talbott Bullard, Secretary; W. C. Patterson, Treasurer.

The following constitute the Board of Directors:

Drs. Geo. E. Abbott, W. Jarvis Barlow, H. G. Brainerd, Norman Bridge, C. C. Browning, B. F. Church, J. R. Haynes, W. W. Hitchcock, J. H. McBride, L. M. Powers, W. Le Moyne Wills, R. W. Miller, Rev. C. J. K. Jones, Hon. M. P. Snyder, Mr. J. H. Francis, Principal of Los Angeles Polytechnic High School.

PUBLICATIONS.

Bureau of Medical Bibliography and Translations.

The JOURNAL has received a circular with the request that the information be published, and we gladly append the following extracts which sufficiently cover the subject matter. The idea seems to be a good one and the institute is probably all right, though we do not know the responsible parties and so cannot vouch for it in any way.

"Our Institute owes its inception to the suggestion given us by the Bibliographical Institute of Paris, with which we have arranged for co-operation, and it has been established for the purpose of assisting the labors of medical investigators, writers and lecturers, with the preparation of abstracts from any articles, papers or reference works on any topic related to medicine; translations from any modern European language, as well as from the classical and from some of the oriental languages; compilation of statistics; outlines for courses; lectures or communications to meetings and congresses of scientific bodies; preparation of material for special papers or for larger works, such as involve careful searching throughout the whole literature. Some prominent physicians of Chicago, who have been pleased with the efficiency of our services, have given us their encouragement. We regret not to be able, at present, to issue a scale of fees, as the nature of the work, and the requirements, vary greatly in each case, but we can assure you that the charges will be reasonable. We have a list of references, which we will gladly mail upon demand, and we are at your disposal for any further information. Medical Institute of Bibliography and Bureau of Translations. Chicago office, Columbus Memorial Bldg., 103 State street, room 1212."

"Ophthalmology;" a New Journal.

In October, this new journal, which is to be issued quarterly, began publication. Dr. H. V. Würdemann is the managing editor, and Dr. Nelson M. Black, assistant editor; the staff of associate editors includes the names of Drs. Wood, May, Diver, Hale, Zimmerman, Zeutmayer, Fryer, Guttmann, Allport, Blaauw, Inouye, Wichedkiewicz and Warth. It announces that its inception was due to the expressed wish of English-speaking ophthalmologists, and that it is "owned, edited, and published by the medical profession, and printed by the *American Medical Association Press*." Subscription price is $5.00 a year, and the office is at 105 Grand Avenue, Milwaukee. The first number contains papers by Drs. Schoen of Leipsic, Gould of Philadelphia, Fish of New Orleans, Fox of Philadelphia, Hale of Chicago, Snell of Rochester, and Reber of Philadelphia; there are also about 140 pages of abstracts and book reviews.

"Refraction and How to Refract" by James Thorington, Philadelphia; P. Blackistons Son & Co.; price $1.50 net, has just appeared in its third edition. He is to be commended for the concise manner in which he has presented this complex subject without sacrificing many details so necessary for its proper understanding. He has appealed to the reader's common sense, to understand the laws of refraction, rather than to his knowledge of mathematics. This edition has been brought up to date by the addition of new illustrations and the description and method of use of some optical devices, notably the De Zeng luminous ophthalmoscope and retinoscope. I am glad to note that Dr. Thorington adheres to the older model of the Hardy Ophthalmometer. It is in many respects a superior instrument to the more recent productions. Though we are led to believe, by careless workers or those not authorized to use drugs in the eye, that cycloplegics are not necessary for accurate refractive work, it is pleasing to note the stress Dr. Thorington places upon this matter. Concise, comprehensive and interesting is the chapter on retinoscopy. This work is to be highly recommended to students of ophthalmology, and especially to beginners. L. C. D.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition, by Dr. Carl von Noorden, Frankfort, a. M. New York, E. B. Treat & Co. Part I, **Obesity** and Part II, **Nephritis,** have been received. These monographs are sold for 50c each. The subject is certainly one that is exceedingly timely; disordered metabolism is attracting, and deservedly, the careful attention of pathologist and clinician. Dr. Boardman Reed is the responsible translator, and he says very truly: "Such disorders constitute the bane of our modern civilization. They have been in some measure also a reproach to the science and art of medicine since until very recently they have not been studied with a thoroughness commensurate with their importance." The form of publication is convenient and the monographs are not weighted down with a mass of superfluous quotation; they are direct and to the point and should be of value in one's everyday work.

Arsenic in Papers and Fabrics, by J. K. Haywood. Bulletin No. 86, Bureau of Chemistry, Department of Agriculture. This monograph gives a general discussion of the question, which is followed by a report of thirteen cases of poisoning by arsenic wall papers and fabrics. Analysis of a large number of samples has been made and the results here compiled. Some wall papers contained as much as .108 and .131 grains of arsenic per square yard. A number of miscellaneous cloths contained arsenic in dangerous amounts, and twelve out of forty samples of stockings contained an amount in excess of the Massachusetts limit. One specimen of fur was found to contain as much as 16.99 grains per square yard! A summary of the various laws relating to the subject is appended.

An Account of the Tapeworms of the Genus Hymenolepis Parasitic in Man, including Reports of several new cases of the Dwarf Tapeworm (H. nana) in the United States. By. Brayton H. Ransom. Bulletin No. 18, Hygienic Laboratory, P. H. and M. H. Service. The Service is doing an excellent and a very valuable work in publishing monographs of this very high order. The two essays here noted are prepared with the greatest care and the very necessary illustrations are done, one is tempted to say, sumptuously. Works of this character are absolutely essential to the student, yet from their very nature are not commercial propositions to the ordinary publisher.

International Clinics; Fourteenth Series, Volume III. J. B. Lippincott Company; price $2.00 net. The present volume contains twelve papers on Syphilis, three on general treatment, four on general medicine, four on surgery, three on gynecology and one on neurology. It also contains twenty-six plates, one of them in colors and all but two of them illustrative of the essays on Syphilis. It will therefore be evident that the present series of monographs should be particularly valuable to those who are specially interested in syphilis, though the other material offered is up to the high standard of the "Clinics."

Intra-Uterine Medication, by Charles Woodward, Chicago, Ill. Published by Woodward Publishing Company, Chicago. This work impresses one as being a delineation of the peculiar fads of the author, rather than any scientific exposition of the subject. His views of gynecologic pathology are far from being clear. The logic of his deductions fails to carry conviction. W.

The following reprints have been received from Dr. John T. Moore, Galveston, Texas: Strongyloides Intestinalis in Texas, with report of a case; Past Operative Malaria, with a report of two cases; The Occurrence of Tenia Nana in Texas; (the first, or at least the second reported case in North America.)

A Discussion of the Vital Statistics of the Twelfth Census. Bulletin No. 15. The bulletin contains, amongst other things, the population, deaths and death rate of all the principal cities from 1890 to 1900, inclusive.

New Methods of Treatment, by Dr. Laumonier; translated by Dr. H. W. Syers; published by W. T. Keener & Co., Chicago. Price $2.50 net. (Will be reviewed subsequently.)

Illustrated Key to the Trematode Parasites of Man, by Ch. Wardell Stiles. Bulletin No. 17, Hygiene Laboratory, P. H. and M. H. Service.

The British Medical Journal for October 29th contains some very interesting papers on the prostate gland.

CHANGE IN TWENTY YEARS.

I want to call your attention to a phase of the drug business which very materially affects the profits. It is one which has been entirely overlooked in searching for reasons why there are not the same profits as formerly. In looking over a file of some twenty years ago the discovery is made that where twenty consecutive prescriptions, selected at random, costing the druggist $2.29, and selling for $8.65, gave him a profit of 277 per cent, or $6.36, twenty similar prescriptions of to-day bring a profit only of 182 per cent. The ingredients of the prescriptions of the present time cost $4.69, and are sold for $13.25, a profit of $8.56.

Now, someone may say that there is no argument, since on twenty prescriptions a score of years ago there was a profit of $6.36, and on twenty ordinary prescriptions of to-day there is a profit of $8.56, nevertheless on a prescription that formerly cost $1.00, a profit of 277 per cent was realized, while to-day on the same investment but 182 per cent profit is made, a net loss in profit on a dollar investment of 95 per cent.

Right here let me suggest that this was in the face of the fact that he had endeavored to obtain an average profit of 200 per cent. Had he, like most druggists, charged per quantity or figured on a basis of 100 per cent profit, then his receipts would have been $9.38, his profits $4.69, or a net profit of $1.67 less than two decades ago.

It must also be remembered, as every experienced druggist will admit, that at the present time doctors are writing more frequently for coal tar products and proprietary articles. In the twenty prescriptions selected from the file of twenty years ago, only one coal tar product was specified; but in the twenty prescriptions selected from files of the present time five expensive coal tar products and six proprietary articles are called for.—*N. A. R. D. Notes.*

ON THE USE OF THE PHOROMETER IN THE CENTERING AND DECENTERING OF GLASSES.*

By LOUIS C. DEANE, M. D., San Francisco.

I HAVE for some years been using Steven's phorometer for the proper centering and also for the decentering of glasses. My attention was drawn to this method by patients in whom I had carefully corrected the refractive error in each eye and yet the expected relief had not come. These cases I had previously examined with the phorometer and found the muscular balance of the two eyes to be normal. On making the test again with the glasses on, I found an apparent heterophoria. I had corrected a ciliary muscular strain only to produce by the incorrect centering of the glasses an incoordination of the extraocular muscles of the eyes.

After correcting the refractive error in each eye, I leave the lenses in the trial frame and direct the patient to look at a candle light twenty feet distant through the phorometer. With the latter I produce a vertical diplopia and place the registering point at zero. Providing there has been no tendency to heterophoria before the glasses were adjusted, there should be none now and if there is, it is more than likely due to the fact that the visual axes of the eyes and the optical centers of the lenses do not coincide.

Any attempt at measuring the pupillary distance by the usual methods for the proper adjustment of glasses is most unsatisfactory; one reason being the variation in size of the angle alpha, that is, the discrepancy in the relation of the visual and optical axes are so varied that I found it too inaccurate as a standard of measurement for the proper adjustment of glasses. This is particularly noticeable in high states of ametropia where great care is required.

In hypermetropia the eyes appear to diverge and they do as far as the optical axes are concerned while the visual axes may be without effort perfectly parallel. If left to the optician, who is simply guided by appearances, such glasses will frequently be decentered outwards.

To state a case, a young lady consulted me wearing —8. D. spherical lenses, with vision of 20/20—both. She complained of severe headaches and a drawing feeling in her eyes, especially after attending the theatre or a day spent out of doors. She had consulted several oculists in the past three years but could get no relief. On directing her to look in the distance she appeared to be looking directly through the center of her lenses. On using the phorometer I found an exophoria of 6°. She said that others had observed this and had prescribed stronger glasses as that would correct the divergence so often associated with myopia; another had gone so far as to recommend an operation. With her glasses off the tests were too uncertain, due to the large refractive error and her poor vision. One thing though was noticeable, that her eyes appeared to be convergent. Using the phorometer and separating the lenses in the trial frame until exact vertical images were produced and comparing this distance with the glasses she had been wearing I found them to be decentered 5 m. m. inwards. On calculating I found that an 8D. lens decentered 4.7 m. m. produces the effect of a 4° prism and so I separated her lenses, making the optical centers 64 m. m. apart instead of 59 m. m. This was followed by most gratifying results and an entire amelioration of her disagreeable symptoms. On looking further into this case I roughly calculated that the visual axes was on the reverse side of the optical axes, which would make it more than 6° to the outer side of where it should be and hence the apparent convergence. I have mentioned this case merely as an example of many similar instances.

If in a state of orthophoria, plus glasses are being used to correct an hypermetropia and homonymous images are produced by the phorometer it is evident that the lenses are decentered and we are producing the effect of a prism base inwards or an apparent esophoria. It follows that the lenses are decentered inwards. Without readjusting the phorometer, the lenses are separated by the screw on the trial frame until the two images become exactly vertical, we may then consider that the lenses are exactly centered, for the distance, in the horizontal direction. The distance separating the centers of the two lenses can now be taken.

In regard to vertical centering the same application holds true, only the phorometer is turned to produce an horizontal diplopia. This test is in one respect not so important as the former, as the lenses as a rule are resting horizontally upon the nose. I must mention one exception though and not an unimportant one, where one eye is set vertically higher in the head than the other, though the phorometer shows that their visual axis are parallel in a vertical direction. In such a case if the two lenses are exactly horizontal, one would be too high or the other too low or both according to which eye was set higher. With glasses on an hyperphoria would be induced, which could be corrected by raising one glass above its fellow until the two images in the phorometer became horizontal. I know of only one trial frame on the market that will allow of this vertical motion, which I consider of some importance.

Taking the general consideration that all lenses can be compared to prisms with their bases or apices together to produce a plus or minus lens, exact calculations have been tabulated showing that a lens of known dioptric strength when decentered a stated distance produces the effect of a prism of a certain strength, that is for instance, a 6D. lens decentered 1.6 m. m. produces a deviation of a ray of light comparable to a 1° prism, or if decentered 3.1 m. m. the effect of a 2° prism is produced. As is seen by such calculations the prismatic effect increases in a gradually increasing ratio to the amount of decentering. The difficulty of calculating such things becomes greater when we consider that the prismatic effect of decentering cylindrical lenses decreases gradually as the line of decentering coincides with its axis. Figures and tables concerning these matters are readily obtainable and I believe hardly ever used in any practical application, while in the phorometer we have a simple, ready and accurate means of arriving at practical results without entering into any mathematical calculations.

The phorometer is also useful for the proper decentering of glasses to correct small amounts of heterophoria. The amount of the heterophoria can first be determined by the usual methods and the amount noted. The registering point of the phorometer is placed at zero. The screw on the trial frame can be turned so as to bring the glasses closer together or farther apart, thereby producing a prismatic effect by thus decentering them. If considerable decentering is required the lenses need not be pushed to one side or the other so as to compel the patient to look through the edge of the glass but the optical center of the lens can be decentered in definite relation to the center of its own eliptical shape.

So much depends upon the amount and kind of heterophoria, strength of lens used and the required prism effect, that to lay down any definite plan of procedure is well-nigh impossible. No part of this work, for its successful application, requires so much experience or judgment as the proper use of prisms.

*Read before the San Francisco Society of Eye, Ear, Nose and Throat Surgeons, October 20, 1904.

Most of us can remember the time when the idea that appendicitis was generally caused by foreign bodies was current, an idea which still exists in the minds of most of the laity.—*Journal A. M. A.*

RESULT OF EXAMINATION HELD DECEMBER 6th.

PASSED.

Cooper Med. Coll., Cal. 1904—82⅝, 84⅞, 82⅝, 84, 78⅝.
Hahnemann Med. Coll. of the Pac., Cal., 1904—82⅝, 82⅛, 75⅞.
University of Cal., 1904—75.
Chicago Homeo. Med. Coll., Ill., 1904—80⅛.
Coll. of P. & S., Ill., 1904—86⅛, 76⅜, 75.
Denver & Gross Coll. of Medicine, 1904—87⅞.
Howard Med. Coll., Washington, D. C., 1904—83⅓.
Jefferson Med. Coll., Pa., 1904—78⅛.
McGill University, Med. Dept., Canada, 1904—77⅝.
Med. Dept. Univ. of Mich., 1904—85⅜, 75⅞.
Med. Dept. Univ. of Minnesota, Minn., 1904—85.
Med. Dept. Univ. of Mo., 1904—75.
Northwestern Univ. of Ill., 1904—82⅜.
Rush Med. Coll., Ill., 1904—87⅝.
Starling Med. Coll., Columbus, O., 1904—82⅛
Passed, 60%.

FAILED.

Coll. of P. & S., Cal., 1904—70⅝.
Cooper Med. Coll., Cal., 1904—65⅛.
Bellevue Hosp. Med. Coll., N. Y., 1904—69⅞, 66⅛.
Coll. of P. & S., Ill., 1904—71⅝.
Jefferson Med. Coll., Pa., 1904—68⅛, 36⅛.
Med. Dept. Univ. of Mich., 1904—67, 62⅜.
Marion-Sims Beaumont Coll. of Med., Mo., 1904—66⅞.
Med. Dept. of Louisville, Ky., 1904—68⅝.
Med. Coll. of So. Carolina, 1904—70⅛.
Med. Dept. Univ. of Va., 1904—62⅝.
Rush Med. Coll., Ill., 1904—69⅜.
Tuffs Med. School, Boston, Mass., 1904—59⅜.
Univ. of Berlin, Germany, 1904—64⅛.

Cooper Med. Coll., Cal., 1904—5 passed; 1 failed.
Hahnemann Med. Coll. of the Pac., Cal., 1904—3 passed; 0 failed.
Univ. of Cal., 1904—1 passed; 0 failed.
Coll. of P. & S., Cal., 1904—0 passed; 1 failed.
Failed, 40%.

DECEMBER EXAMINATION.

The Board of Medical Examiners met on December 6th. Several important resolutions were passed at the various sessions, and among them may be noted the following, which it is desired to call to the attention of members of the Society:

Resolved, That a committee of seven be appointed to investigate the various medical schools within the State to ascertain if the requirements are equivalent to those prescribed by the Association of American Medical Colleges.

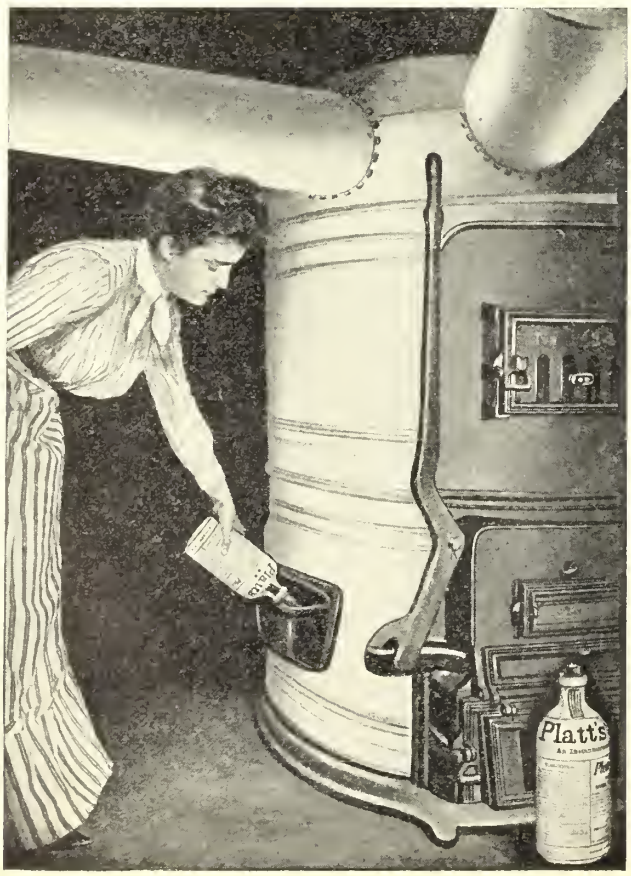
Resolved, That the Secretary ascertain from the secretaries of the boards of examiners of the various States which medical schools are considered by them as in good standing, and that this Board reciprocate with such boards in the matter of determining the standing of medical schools.

Resolved, That when evidence of preliminary education consists of a diploma or certificate, the applicant be required to file the same with his medical diploma, and that when the matriculating examination has been conducted by a medical school, the applicant be required to file with his diploma an affidavit stating on what subjects the applicant was examined.

Resolved, That all applicants be required to file their credentials at least one week before the examination.

The matter of medical officers of the Government services was brought up (see editorial comment in the present issue), and the Board emphatically opposed the recommendation of any amendment to the medical law as it stands.

The Utero-Ovarian Artery, by Byron Robinson. Published by E. H. Colegrove, Chicago, Ill. This work exemplifies a pressing need of the day, namely, less scope and more detail. In this book, however, there is too much repetition and too much Byron Robinson. The first twenty pages contain the whole practical information. After this, the work becomes tiresome with heavy detail and repetition. W.



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California State Journal of Medicine.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

FEBRUARY, 1905.

THE NEXT A. M. A. MEETING.

The next meeting of the A. M. A. will be held at Portland, Oregon, July 11-14, 1905. Applications for membership may be secured at the office of the Society, Room 1, Y. M. C. A. Building, San Francisco.

EDITORIAL NOTES.

THE MEETING AT RIVERSIDE.

The next annual meeting of the State Society will be held on April 18, 19 and 20, at the New Glenwood Hotel, Riverside. Riverside is one of the fairest garden spots of California, and in April it should be particularly beautiful. The Glenwood Hotel is one of the most delightfully appointed hotels in the state and has ample accommodations for all; not two blocks away is another excellent hotel, if any there should be who prefer some other stopping place. The manager of the Glenwood has given a rate of $2.50 per day for room without bath and $3.00 per day for room with bath, meals included, and both table and service leave nothing to be desired. Very good meeting places are in or conveniently near the hotel and there seems to be no reason why the meeting should not be one of the most successful and enjoyable in the history of the society. The Committee on Program has taken hold of the work in good season and has devoted and is devoting much time and careful work upon it. All parts of the state will be well represented on the program and each man will have sufficient time to present his paper or his discussion. It has been decided to limit the number of papers and have fewer than in the last few years so that no one shall be crowded from the program. The medical men of Riverside have taken much interest in the work and the local Committee of Arrangements has well outlined everything to produce convenience and pleasant arrangements. A time table giving all necessary data as to trains, connections, etc., will be published in a subsequent issue of the JOURNAL. There is every reason to believe that the meeting will be a most decided success and members should make their plans now to attend it. To those who live in the northern part of the state and have not visited Riverside recently, it will be a most delightful revelation. By all means attend this meeting.

SOME BAD LEGISLATION.

Two particularly objectionable bills have been introduced, one in the Senate and the other in the Assembly. Senate Bill No. 179, introduced by Mr. Frank W. Leavitt, of Oakland, is intended to "prevent vaccination being made a precedent to admission to the public schools"; it is the "anti-vaccination" bill and its passage would cost the State hundreds of thousands of dollars, and the lives of many innocent victims. The bill was referred to the Committee on Public Health and Quarantine, composed of the following gentlemen: Philip J. Haskins (chairman), 1307 Jackson st., San Francisco; Jas. A. McKee, Sacramento; A. E. Muenter, Stockton; C. W. Pendleton, Los Angeles, and Samuel H. Rambo, Boulder Creek. Assembly Bill No. 267, introduced by Mr. George A. McGowan, 492 Eddy st., San Francisco, is "A Bill Amending the Act Regulating the Practice of Medicine and Surgery in the State of California," and is the most outrageously vicious medical bill ever introduced. It provides an "examining board" of nine members, three from each of the three schools, appointed by the Governor, and it permits this board to issue certificates with or without an examination, at its discretion! The bill was referred to the Committee on Public Health and Quarantine, consisting of the following members: Dr. W. F. Gates (E), Oroville (chairman); John A. Cullen, 7 Ritch st., San Francisco; R. H. E. Espey, 1303 Seventh Ave., Oakland; Fred J. Meincke, 1298 Mission st., San Francisco; E. M. Pyle, Santa Barbara; J. W. Moore, Undine; S. H. Olmsted, San Rafael. Don't lose an hour's time in writing to the Senator and Assemblyman from your district, and get every voter you can to do the same thing; tell them to leave these two laws alone—the vaccination law and the medical practice act. If these two bills are allowed to become laws, the scourge of small-pox and the pestilence of the quack will soon be California's portion.

MICROCOCCUS RHEUMATICUS.

Dr. James M. Beattie, of the University of Edinburgh, reports* the result of some work along the line of investigation undertaken by Beaton and Ainly Walker and reported just a year ago. His results are found to closely approximate those of the previous observers and it would seem probable that the same organism is dealt with in both series of experiments. One of the cultures employed by Beattie was obtained "from the synovial membrane of a girl with acute rheumatism and recovered from the vegetations of an endocarditis in a rabbit." The organism he describes as follows:

"The organism is a small micrococcus which occurs in the tissues and in cultures in pairs or in short chains. Grown in milk bouillon the chains are more definite, but I have never seen chains containing more than a dozen organisms. In size it is smaller than the ordinary streptococcus, and I have never been able to produce in any media the long chains which one so constantly finds in cultures of the streptococcus pyogenes. Many of the organisms, especially those seen in pairs, are rather oval in shape, and more resemble the pneumococcus than the streptococcus. No capsule could be demonstrated. Degeneration forms are fairly common, the coccus becoming swollen and elongated, but even in cultures of several days' growth the infrequency of degeneration forms as compared with those in a growth of streptococcus pyogenes of a similar period is a very striking feature. It stains readily with all the ordinary aniline dyes. It retains the stain by Gram and in Weigert's modification of this method."

The author concludes that the organism described is causal in acute rheumatism, from cases of which it may be isolated and grown on culture media. These conclusions are somewhat at variance with the general opinion of those who have studied the disease in its relation to metabolism and regard it as but one of many possible forms of expression of those conditions of deranged nutrition but little understood. It remains for future study to disclose the relation of the organism in question to rheumatism.

TUBERCULOSIS SANATORIA.

Whether or not the legislators of our state will have time to consider the financial loss occurring from the cutting off in their prime of a large number of our citizens, remains to be seen. The California Club of San Francisco, acting under the advice of the tuberculosis committee of the State Society, has prepared and presented to the legislature a bill providing for State Sanatoria for the tuberculous poor. Dr. Pottenger, chairman of the committee, has presented some facts in regard to the financial side of this question and Dr. Evans, another member of the committee, has written an article which appeared in the publication of the Merchants' Association of San Francisco along somewhat similar, but more general lines. These two documents eminating from the committee present the whole matter in very simple guise and have been placed in the hands of all the legislators. As we have said, it is, of course, a problem what they will do in the matter, but the measure appears, in every way, to be so eminently expressive of simple common sense that it should be adopted. The members of the tuberculosis committee are to be congratulated upon their work and their efforts, and equally are the members of the California Club to be highly commended for their action in the matter. Certainly it is to be hoped that the bill will be enacted, and to that end it may with reason be urged upon members of the society that they aid the movement in every way in their power.

* *British Medical Journal*, December 3, 1904.

A FEW FACTS.

At the Atlantic City meeting of the American Medical Association, a member in good standing, and an officer of one of the sections, read a paper before that section.*

In the paper a number of notorious nostrums were mentioned and among them seng and chionia. The paper was approved for publication and appeared in the *Journal of the Association*, December 3, 1904. The extent of our present interest in the matter is the presentation of the facts given above and those which follow; we are not concerned directly with the author or with the subject matter of the paper. In the issue of the *Journal* for December 24 is published a letter from the manufacturer of these two nostrums, bitterly attacking the author of the paper referred to—a paper which had been written and read by a member of the Association and "approved for publication." Consider that in connection with the following incident: Most of us know or know of, Dr. G. Frank Lydston. In December, 1903, he wrote a letter to the *Journal* in reply to certain statements which it had published. The nature of the controversy is not material; Dr. Lydston's words are never trivial and are always worth consideration, whether one agrees with his contention or not. Of this communication Dr. Lydston says: "The letter published herewith (privately printed) was sent to the *Journal of the A. M. A.* for publication, and was returned, with the explanation that the editor did 'not see fit to publish it' without alteration. He failed to inform me whether he took exception to the style or to the subject-matter. I saved my ego center from shock by inferring that the subject matter was offensive. The distinguished editor of the *Journal* has adversely criticized my style on several occasions, and another blow would have given me literally a 'finish.' * * * * If the American Medical Association desires the sympathy and co-operation of the medical profession at large, it must avoid partisanry and affronts to the medical rank and file." Are the pages of the *Journal* open to manufacturers to assail and insult members of the Association? Are they not open to members who may wish to voice criticism of the Association, or its *Journal?* Is this sort of "close corporation" policy going to ensure the greatest success for the Association?

* The Relation of the Physician to Proprietary Remedies. William J. Robinson. "Approved for publication by the Executive Committee."

DIGNIFIED EDITORIALS.

"It is too bad that cologne won't keep sewers fresh and wholesome, and we admit on the spot that scavengers are a distinct blot on the face of municipal proprietary. It is also to be regretted that work means sweat and war means death. But, on the other hand, experience teaches that moral suasion is a frail staff in a mob, and that two fists beat an axiom every time in a street fight."*

It is never pleasant to look upon the nasty face of corruption; it does not enhance one's feeling of respect for his profession to learn the opinion of a manufacturer that a very large percentage of physicians will write an article lauding any preparation whatever, for $25.00 or less, or to know that a still larger percentage of "medical journals" will publish such an article when written—if the manufacturer is an advertiser or will extend his advertising patronage. It does not make one pride-swollen to look upon this sort of thing in the medical profession. It does not add to the editorial joy in living to receive a carefully prepared "write up" from some manufacturer, consign it to the waste basket, and then watch that self-same article appear in numerous "medical journals" as an original and valuable contribution to medical literature! It does not increase one's respect for his kind to see and know these things and to picture the sort of intellect and conscience possessed by the doctor who owns and edits such "medical journals" and helps in the exploitation and debauching of his own profession—who offers himself and his possessions openly for prostitution. Dishonesty, fraud, graft—these are not pleasant nor dignified attributes, nor is the contemplation of them, nor a discussion of them, what would be called "dignified." Of course not. Doubtless the house-breaker considers the illuminating ray of the patrolman's night light a most undignified thing; nay, even an impertinant, no doubt.

CONSIDER THE LILIES.

Let us consider the great diffusers of dignified editorials. For more than a generation the *Medical Record*, the *Medical News*, the *New York Medical Journal* and the *Boston Medical and Surgical Journal* have been leaders in medical journalism in this country; more recently the *Journal of the American Medical Association* and *American Medicine* have come to the front. Let us see what these have offered; what they have added to the general good of the world. The ablest men in the country have edited them or have written editorials for them; thousands on thousands of the best physicians in the land have read them regularly and have contributed to their success through the scientific material published in their pages. Their editorials have been, beyond question, dignified. Occasionally an editorial page has been sold for the laudation of some manufacturer's product; more rarely an unscrupulous manufacturer has jobbed a journal into publishing something in his favor unknown to the editor. In the main, and along one line, they have done a wonderfully good work. But while doing it in one line, have they not undone most of the good by commercial laxness in another line? They have lowered the standard of medical ethics by promoting the use of nostrums no whit better nor worse than peruna, et al. With one tongue they have uttered learned and dignified editorials; with another tongue they have ridiculed these good words and have said "use these things which our advertisers place before you; forget your materia medica; forget your principles of ethics; follow these false gods; it is easier to use this ready-made medicine, and the ready-made medicine is really better than the pharmacist can make what you think you want; the pharmacist is a clumsy criminal and will substitute, therefore be sure that you get our stuff in the original package—never mind what it contains." Careful examination of the editorial pages of some of these journals for years back fails to disclose a single word of warning against the use of the nostrum—the remedy of unknown composition. That would be undignified; and also, it might deprive that journal of some revenue, actual or prospective, for the manufacturer would not advertise—or subsidize. The leaders have not lead right; they have not directed the steps of following physicians to the well of truth and honor, but have bended the knee before the golden calf; and the disciples have followed the example, or have strayed into other paths. Can it be considered truly dignified to pass through the world with a prayer book in one hand, and a sand bag in the other?

ANNALS OF SURGERY.

One of the most creditable publications in the English language is *Annals of Surgery*. With the issue for December it closed its twentieth year and marked the event by bringing out a magazine of nearly 300 pages—almost a book in itself. The *Annals* began in 1884 under the editorial control of Dr. Lewis S. Pilcher and has continued under his remarkably able guidance up to the present time. The December issue gives a most interesting editorial review of the history of the publication. The regular scientific matter is quite up to the usual high standard. Two things suggest criticism. A paper by Dr. George E. Brewer on some experiments on a method of closing wounds of the larger arteries seems, to say the least, rather premature. It is doubtful that the method will appeal to surgeons as at all dsireable and it seems to be rather a waste of space to publish it. The second criticism is based upon the statement made editorially that full control of the *Annals*, including the censorship of the advertising pages, has been placed in the hands of the editor. This, in itself, is not open to criticism, but the fact that the editor does not seem to have made use of his privilege in this direction, is unfortunate. So seldom does the *Annals* present anything open to appreciable adverse criticism that we almost feel like apologizing for these few critical words.

* *The Argonaut*, January 2, 1905.

THE BACILLUS OF SYPHILIS (!)

While medical journals can in no wise be held responsible for the views of their contributors, there should be some careful censorship. In the *New York Medical Journal,* December 24, 1904, there appears an article by Justin De Lisle, "A Contribution to the Serum Therapy of Syphilis," which to say the least, fairly bristles with statements that must prove misleading to those not familiar with the latest publications on the subject. The bacillus of syphilis has been isolated, demonstrated and successfully cultivated upon artificial media (?)! M. v. Niessen, for the last number of years, persistently claimed that he had found and successfully cultivated the syphilis bacillus. Neither his publications nor his claims were taken seriously, as they lacked scientific precision. Later, Joseph and Piorkowsky demonstrated a bacillus of the pseudo-diphtheria type which they were able to grow on placental media and which was demonstrable only in the sperma and blood of syphilitics. Winternitz, Waelsch, and Pick were able to isolate a similar bacillus, but Pick cautiously *termed* it a pseudo-diphtheria bacillus present in syphilitics. This bacillus and the v. Niessen bacillus proving identical, together with the fact that extravagant claims were made by Paulsen and others for results with syphilitic serum treatment, caused Pick to turn over to Waelsch the large material of his clinic to demonstrate the exact scientific status of the bacillus above mentioned, the "Gesellschaft zur Foerderung Deutscher Wissenschaft, Kunst und Literatur in Boehmen," allowing the necessary funds. The investigations covering this tremendously tedious and exhaustive work representing cultures, animal inoculations, etc., were published in the January, 1904, number of the *"Archiv für Dermatologie und Syphilis."* The result shows that the bacillus is not the syphilis bacillus, but is a saprophite found present in a greater or lesser percentage of syphilitics. The claims of cures with serum by De Lisle are hardly rational, as we know the exquisite chronicity of the disease as well as its eccentricities in the appearance and disappearance of symptoms. Of more than passing interest is the demonstration of a horse inoculated with syphilitic blood showing a papular rash and adenopathy, by Piorkowsky to the Berlin Medical Society. Dermatologists of note claimed that the lesion resembled syphiloderma most closely; veterinarians had never seen a similar rash; histopathologists pronounced the specimens nonspecific, and Aronsohn, who has had great experience with serum work, claims to have seen similar eruptions in several of his horses injected with other bacteria. This all tends to prove that while scientific research and experiment is most essential for progress, no extravagant and unsupported conclusions misleading to the practitioner should be drawn and published. Up to date the bacillus of syphilis has not been demonstrated, nor is there a syphilitic serum treatment of any merit.

SURGICAL INTERFERENCE IN TUBERCULOSIS OF THE BLADDER.*

By GRANVILLE MacGOWAN, M. D., Los Angeles.

OCCASIONALLY in medicine and surgery one has to do practically things which jar one's theories. I believe that genital and urinary tuberculosis does best, usually, under medical treatment, and I have been very much impressed with the results obtained by my friend, Dr. Chismore, by hygienic means alone. Yet in my practice cases have come up where it seemed to me more radical measures were needed, and their application has furnished the material for this report.

Through this experience I must differ from many who deprecate ever interfering surgically in vesical tuberculosis. When the distress is great and the cystoscope shows tuberculous ulcerations in a bladder that will hold 100 cc. or more under anesthesia, after a reasonable trial of constitutional treatment, urinary antiseptics, instillations of sublimate, etc., without benefit, I would resort to the sharp curette. Curettement must not be gentle and ladylike, but firm and rough in order to be curative. Much of the benefit of curettage of tuberculous lesions is to be attributed to the inflammatory changes set up around the foci, destroying them. Tubercles wherever found must be dealt with mercilessly or let alone. I have had no experience in the curettage of bladders through the urethra, for my practice is greater with males, and my female patients have, with one exception, either been cured or so greatly alleviated by medical treatment that surgical interference was not necessary.

Suprapubic section should be done and the anterior bladder wall firmly fastened by catgut to the transversalis fascia and the recti muscles to protect the space of Retzius during and after the operation. Laterally it should be attached temporarily to the abdominal muscles by silk or Florentine sutures left long enough to be used as retractors. The bladder should be dried and then explored by aid of electric light. The most satisfactory instruments to use for this are the Nitze electric operating forceps or the Bransford Lewis female cystoscope, with which one can easily view all portions of the bladder through the wound. If the ulcers are few in number and favorably situated, aided by the pressure of the hand of an assistant within the rectum, they may be fished up by tenaculi, curetted, excised and the edges of the wound brought together with fine catgut. If, as is usually the case, the ulcers are numerous and small, or the lesions be chiefly miliary or consist of elevated patches, or the tubercles few but disseminated in a sodden and gelatinous mucous membrane, very rough curettage of the entire mucous surface should be practiced with sharp curettes. The dermal curettes of Prince Morrow, the antrum curettes of Myles, the cup-shaped bone curettes of Tiemann and the flat bladder curettes of Bazy will be found very useful for this work. It is best, also, to thoroughly dilate the vesical neck and the prostatic urethra with uterine or Kollman's curved urethral dilators so as to avoid subsequent tenesmus. Hemorrhage is lessened by the free use of a solution of epinephrin in the bladder before operation and readily stilled afterward with hot water at a temperature of 130° F., care being taken to protect the skin of the abdomen and thighs from irritation by smearing with sterilized vaseline. The bases of ulcers after curetting should be touched with a 50% solution of zinc chlorid or pure lactic acid upon fine swabs, or by a Paquelin microbrenner or electric cautery point through a caisson.

During the first twenty-four hours the bladder should be irrigated every half hour with hot normal salt solution, and hypodermic injections of seven drops of solution of epinephrin 1-1,000 be given to in-

*Read at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April, 1904.

sure perfect hemostasis. Subsequent treatment should consist of suprapubic drainage by means of the large De Pezzer tubes, and washing the bladder once or twice daily with a warm solution of sublimate 1-100,000 introduced from the urethra through a catheter by a hand syringe, until the urine becomes clear, which will be in from two to six weeks.

I report the following ten cases; the first patient was not operated upon by me, but was under my observation a long time after operation. The results obtained in cases 2, 3, 4 and 5 certainly justify the measures used. If the others have a value it probably teaches that in cases where tuberculous process has invaded the whole bladder structure, and where there is a thick, contracted, brittle bladder that will not hold more than 30 to 50 cc. under deep anesthesia, surgical interference may be tried as a last resort, but will probably not prove beneficial. If the tuberculosis is descending from the kidney my experience coincides with that of others that the removal of the kidney is generally necessary to quiet the cystitis, and the ulcerations will then usually heal. In reviewing these cases one cannot but be impressed: First, by the role played primarily in their development by gonorrhea; second, the ground having been prepared by the gonococcus, the tubercle bacillus found entrance through the open door furnished by chemical or traumatic insults to the vesical mucous membrane during treatment for gleet or urethral stricture; third, nearly all were free from consumption, that is from tuberculosis of the respiratory organs.

Case 1, June 30, 1893. John S., aged 36, plumber, married. A robust, muscular man of great strength and endurance. No history of gonorrhea.

In 1887 he was suddenly seized with an irrepressible desire to urinate. Great pain followed, and that has continued ever since. In 1889 Brewer, of New York, did a perineal section upon him, with temporary relief only. In 1892 Dr. Bolton Bangs did a suprapubic cystotomy upon him. He was drained for six weeks, but with no noticeable improvement. Sent to California he came under my care, with urinary frequency every fifteen minutes during the day, and a rubber diaper was worn at night. The pain was intense, and referred to the glans, upon which he pulled vigorously at each act of micturition. Suprapubically there was pain where the right ureter crosses the pelvic brim. While urinating he stood on one leg, and had spasmodic contraction of all of his abdominal and spinal muscles. General examination negative. Scars of perineal and suprapubic operations. Cicatrix of fistula on right side of scrotum. Prostate and seminal vesicles nodular. Perivesculitis. Bladder contracted and thick walled. Bladder capacity under chloroform anesthesia, 90 cc. Urine amber; sp. g. 1020, contained debris, sometimes blood, pus, tubercle bacilli, and ¼% of albumin. Cystoscopic examination: Light rays absorbed at summit; trigone and bladder neck congested and gelatinous; ulcerated surfaces, some superficial, some excavated upon lateral and posterior bladder walls.

Internal Treatment.—Gaduol and creosote irregularly. Local treatment—Injections of iodoform in glycerin and olive oil, with detriment. For several years at intervals of several months, he received daily instillations of sublimate, 1-10,000 to 1-7,000, with marked benefit, so that he could retain his urine for two hours, and was able to discard his rubber diaper. He grew so well that he attempted, with others, to rob a bank by tunneling a long distance under ground. The attempt failed, and he was forced to flee the country, and, I am informed, was hanged in Dawson in 1900. He had a child born in 1892, during the active period of his tuberculosis. This seemed to be entirely healthy, and even robust, in 1896. Under observation nine years.

Case 2, Aug. 7, 1893. J. T. C., single, aged 27, coachman. No hereditary tendencies. Habits good. Gonorrhea two years ago, followed by spasmodic stricture. Five months ago drove in a rainstorm for five hours, and immediately his bladder became irritable and his urine purulent, but without preceding pain or chill. For this he was treated by a quack who introduced sounds every three days and irritated his bladder with a guessed strength of silver nitrate, using a fountain syringe and a catheter. The result was bad. Frequency twenty minutes, with great urgency and hematuria. He has lost weight. Physical power lessened, digestion impaired, and is greatly depressed mentally.

Examination.—Heart, lungs and abdominal organs negative. No temperature or night sweats. Testicles, prostate, seminal vesicles and urethra healthy. Bladder capacity 40 cc. Urine, obtained by catheter, alkaline; sp. g. 1016! contains triple phosphates, microorganisms, blood, pus, ropy mucus, and albumin 1%. Daily quantity about 2100 cc. The pus and mucus equals about one-half of the bulk.

This case was supposed to be one of simple cystitis, aggravated by traumatic and chemical irritation, and under appropriate treatment he improved until his urinary frequency was reduced to once in three hours. About October 4th his bladder capacity was 120 cc., but his urine remaining purulent, I made a cystoscopic examination. Upon the summit of the bladder were several large ulcers, apparently traumatic. On inquiry I found that his physician had always depressed the handle of the steel sounds far down between the thighs, stating that this was necessary to be sure the instrument had entered the bladder. After each passage of these bougies he had had a dull pain above the pubes. Scattered over the lateral quadrants and the fundus were a large number of miliary tubercles. In some places minute ecchymoses surrounded with hyperemic zones and stellate enlarged capillaries could be seen, while in others necrosis involving the mucous membrane had formed small, irregular ulcers. There was but little general thickening of the bladder wall. The mucous membrane about the bladder neck was edematous and congested. There was no ill effect from this examination. A few days afterward I essayed an injection of 1% solution of resorcin. This was followed by considerable disturbance, which I thought I would allay by a 1-10% instillation of iodin trichlorid. The irritation following was unbearable, and necessitated sectio-alta on October 20th.

The superior bladder wall was thickened, and there was a peri-cystitis with adhesions of the anterior peritoneal fold. Under electric light I curetted the bladder thoroughly, and touched each ulcer or tubercle with either silver nitrate, fused on a silver probe, or with pure carbolic acid. He made a good recovery. Internally he received salol and boric acid with elixir of gaduol and creosote. Daily irrigations were made with lactate of silver, 1-20,000. After the operation his urine became acid, but remained moderately purulent. The bladder capacity increased to from 250 to 300 cc., and he resumed his occupation as a coachman.

In March, 1894, a second cystoscopic examination was made. The ulcers had disappeared, but brown patches marked their position, and the mucous membrane had generally lost its lustre. Soon afterward he returned to England. No tubercle bacilli were found in his urine at any time, though sought for frequently. Under observation one year.

Case 3, April 30, 1894. Chas. N. S., American, aged 30, single, fruit merchant. From his second to his twenty-fourth year had abscesses of right hip joint. At 26 had gonorrhea for four months. Never free from pain in bladder since. Until 24 was a frequent masturbator. For three years has had urinary frequency, dysuria, tenesmus and the passage of blood at the end of micturition. Has been treated for stricture by the passage of sounds. The pain during urination is referred to the glans, and relief seems to be afforded by drawing upon the penis. There is a continuous burning pain on the left side of the abdomen corresponding to the spot where the ureter dips into the pelvis, and there is the sensation of the pricking of a briar at the peno-scrotal junction, and the feeling as if a cockleburr were stuck in the perineum. Urinary frequency hourly during the day and two hours at night.

General Examination.—Negative. Large varicocele on left side; prostate healthy; seminal vesicles distended and sensitive, but not nodular; urethra very hyperesthetic, but no strictures or ulcers; urine acid, sp. g. 1024; contains blood, pus, microorganisms, columnar, pavement and tailed epithelial cells, but no tubercle bacilli or gonococci. Bladder capacity 200 cc., but any attempt to exceed this quantity causes a sudden painful spasm, requiring immediate urination.

Cystoscopic Examination.—On the right lower quadrant posteriorly were a half dozen small hyperemic nodules. On the left posterior wall about 20 millimeters back of the uretheral mouth was a large irregular excavated ulcer with undermined scalloped edges, and a yellowish gray base surrounded with a narrow bright red hyperemic zone which looked as if it had been formed by the fusion of a group of small ulcers. The trigone and vesical neck were edematous and congested.

He was treated for four months internally with creosote, codliver oil, guiacol, iodoform and sulphurous acid; locally with irrigations of silver lactate, boro salycilic solution, resorcin, carbolic acid, iodin trichlorid, and emulsions of iodoform with glycerin or fluid vaselin, receiving in addition anaglesics, by the mouth and as suppositories, without any noticeable benefit. I then did sectio-alta, curetted the smaller foci and cauterized each with a fine Paquelin point through a caisson, fished up the left posterior bladder wall with a tenaculum assisted by the pressure of the hand of an assistant in the rectum, removed the ulcer with knife, scissors and sharp curette, cauterized its base with the Paquelin, overstretched the urethra from the meatus to the bladder, and drained the bladder suprapubically for four weeks by the De Pezzer tubes. Daily irrigations with 1-20,000 solution of silver lactate. The material cut and scraped away from the ulcer contained tubercle bacilli.

For several months afterward he received daily instillations of 1-10,000 solutions of sublimate. The result was excellent. The ulcer cicatrized entirely, the urinary frequency was reduced to six or seven times for the twenty-four hours, only twice at night. The bladder capacity was so increased that he frequently could hold 480 cc.

When seen last, in 1904, he still remained comfortable. Length of observation ten years.

Case 4, January 26, 1895. John H., 48 years old, Irish, laborer, single, of good habits. Gonorrhea in 1892. In 1893 internal urethrotomy for urethral stricture. Six months later he had cystitis, and ever since has been compelled to rise at night four or five times. The capacity of the bladder is irregular; sometimes he can hold 500 cc., sometimes only 100 cc. No noticeable hematuria.

Examination.—Respiratory murmur and percussion resonance impaired on right side. Has stomachic and intestinal indigestion, with constipation and frequent attacks of biliousness. No rectal disease. Genital organs healthy. Bladder capacity 480 cc. The urethra will generally take a No. 20 F. steel olive-tipped bougie easily, but sometimes there are irritable spasms at the meatus and in the bulb, preventing the passage of any soft instrument.

Cystoscopic Examination.—February 1. Much floating mucus and pus shreds. The mucous membrane about the bladder neck was edematous and gathered into large folds giving the impression of a neoplasm. Upon the bladder summit was a large irregular ulcer with hemorrhagic discolorations of its edges which looked as if caused by repeated traumatisms. The mucous membrane of the entire bladder was without gloss, and looked thickened. Upon inquiry I found he had had large sounds passed every second day for many months, the handle being depressed far down between the thighs, and he had also been having permanganate solutions, 1-500, and sublimate, 1-2,000, by injections through a catheter with resulting increase of discomfort.

His urine was acid, and contained ¼% albumin, much pus, a few red blood cells and abundant microorganisms. I believed we were dealing with a gonorrheal cystitis, aggravated by violence, and used a salycilic wash 1-3,000 by the Janet method daily until June, with balsamics; santal harlem oil, eucalyptus and wintergreen oils, and later salol and boric acid. His urine grew clearer and the frequency less. In June I cystoscoped him a second time. The bladder wall in general more closely approached that pink-stained straw color that is natural, but was blotched by brownish discolorations marking preceding hemorrhages or healed erosions. At the extreme summit the rays were entirely absorbed. The edema had disappeared almost entirely at the base, and one could see plainly a few scattered red and white nodules shining through the mucus membrane, and a few stellate or web-like patches of blood vessels centering on hemorrhagic spots in the submucous tissues. I believed that his cystitis was gonorrheal plus the irritation of traumatism and strong chemical solutions. The treatment was continued with marked benefit until the following September, borocitrate of magnesia, and later hexamethylene-tetramine being added to the therapeutics of internal treatment.

In January, 1899, he had an acute gonorrhea, which was complicated in February by double epididymitis. He dismissed himself as cured April 20th. Discharge had ceased, the epididymitis had disappeared, his prostate and seminal vesicles felt normal, but there was a considerable pus in his urine. He refused to be cystoscoped. In July, 1899, he returned, complaining of pain and burning in the bladder and tenderness upon pressure above the pubes. Urine removed from the bladder by the catheter contained pus. I suspected urinary tuberculosis, and remembering the peculiar appearance of the bladder wall, the cystoscope was introduced again, but did not give a very satisfactory view on account of both cystospasm and urethrospasm. The urine was examined for tubercle bacilli several times with negative results. It swarmed with other microorganisms. The examination seemed to do him good for a time, for there was less pain and frequency.

In October he complained of frequent and urgent micturition during the day, but except for great polyuria was comfortable at night. I saw him once or twice a month until August, 1900, his condition remaining much the same. He received methyline blue, santal oil, saw palmetto, triticum, oil eucalyptus, methyl salicylate, guiacol carbonate, creosote, gaduol, aspirin, hexamethylene-tetramine, borocitrate of magnesia internally, and his bladder was washed with boric acid 1-500, silver lactate 1-5,000, borolyptol 1-100, and sublimate 1-100,000, without benefit.

He was then cystoscoped for the fourth time. The whole mucous membrane seemed to be studded with miliary tubercles varying in color from light pearl to bright red. Some had undergone cheesy degeneration. I then immediately did sectio-alta. The summit was tightly adherent to the peritoneal fold. The bladder wall was generally and vigorously curetted and the outlet stretched. The few tubercle foci which had ulcerated were very irregular in form. The curettement was almost brutal in its severity. The hemorrhage was great, but was controlled by the use of a continuous stream of hot water to 130° F. He was drained suprapubically through a De Pezzer tube as described by the writer elsewhere. (Journal Cut. and G. U. Diseases, May 1900). At the end of 20 days, when the urine had become clear, the tube was removed, and the track healed in 24 hours.

After the operation the bladder was irrigated daily with sublimate 1-100,000, and he took hexamethylene-tetramine grammes 1.5 and methyline blue .045 daily. For the following two months he received instillations of sublimate 1-8,000 every third day, and had daily inunctions of a mixture of guiacol in olive oil 1.4 over the bladder each day.

In November, 1900, he went back to work as a switchman for the Southern Pacific Railroad. There was still microscopically a very little pus in the urine. I saw him last in November, 1903. He had had no further treatment, had no pain, no annoyance at night, no frequency during the day and clear urine. He recently had undergone a gastro enterostomy for pyloric stenosis, the cause of his dyspeptic symptoms.

Many examinations were made for tubercle bacilli in this man's urine between January, 1896, and November, 1900, but none were ever found. Yet this was a distinctive case of primary vesical miliary tuberculosis. He had no temperature before his operation, no hectic, and no night sweats. After operation his temperature rose once to 101°, and during the last week he was in bed he had some night sweats, but these disappeared after he was out and about.

Case 5, July 11, 1900. S. S. L., aged 27, single. Previous history: When twelve he commenced to urinate frequently but without pain, for which his meatus was cut without benefit. From the age of eighteen he has had frequent and painful urination. He has been treated with sounds and dilators, and his bladder injected by many physicians. He had the rest cure and instillations of nitrate of silver; the former did not benefit him, and the latter made him distinctly worse. There is always pus in his urine, and at times, blood. No tubercule bacilli have ever been found. Bladder capacity 120 cc. Pain begins just before urination, and is excruciating. He urinates every hour during the day and 15 to 20 times at night. He is a tall, well-built man, who is strong, but who looks tired.

General examination negative. Urethra hyperesthetic. Prostate normal. Seminal vesicles not enlarged or nodular, but pressure upon either of them causes the same kind of pain that he experiences when urinating. Urine acid, purulent, bacterial, contains traces of albumin, but no tubercle bacilli.

Cystoscopic Examination.—Bladder walls thick and congested. On the summit are some brown pigment spots; on the lateral segments and around the ureters there is a purplish, gelatinous, edematous, puffy appearance. On the right lower quadrant there is a superficial ulcer about 1½ cm. in diameter, with yellow base and scalloped edges. The whole picture was one of a certain form of tuberculosis of the bladder. There was no ill effect from the examination.

Treatment.—Instillations of sublimate 1-20,000 gradually increased to 1-12,000. At the latter strength it produced so much irritation that the patient was confined to his bed for several days. Injections of eka iodoform in oil of sesame and in liquid vaseline was essayed, but also caused much pain, and was abandoned. In January, 1901, he was confined to his room, and often had to pass water 30 times at night. We then began instillations of bichlorid 1-50,000 daily. He grew gradually better, and the strength was increased to 1-23,000. He persisted in playing golf without proper protection, and had another relapse. I advised a supra-pubic cystotomy, which we did March 23, 1901.

There was a chronic cystitis. A few tubercles were visible in the edematous mucus membrane, and many enlarged glands produced a granular appearance in some places. I vigorously curetted the ulcer and all of the bladder wall that I could reach with my large sharp curettes. I then dilated the urethra to 45 F. with Kollman's' dilator, and curetted it with a small sharp uterine curette. The bleeding was stilled with hot water. There was a peculiar small fibroid band in the anterior part of the trigone, which I severed. Drainage by the De Pezzer tube supra-pubically, and a retention catheter in the urethra. The latter was irrigated every hour to insure free drainage. He remained in the hospital until May 4th. He developed phlebitis of the left leg in the middle of April. This disappeared in about three weeks. The drainage was removed April 27th. When he left the hospital he was urinating comfortably five or six times during the day and twice at night. He was given hexamethylene-tetramine and general tonics during the summer, and lived at the seaside.

He now rises only once at night, and has to pass water only every four or five hours during the day. His bladder will hold 250 cc., and he can go to the theater or to any evening entertainment without fear and with comfort, a thing he had not been able to do since childhood. He occupies a position of trust, and is able to work. I saw him February 1st, 1904. He is still well. Under observation nearly four years.

(*To be continued.*)

Prosecutions in San Francisco.

The first three cases to be heard under the present arrangement whereby illegal practitioners are prosecuted by the County Medical Society, resulted in prompt convictions, with a fine of $100 in each case. The convicted were Waller, Richman and Parlow. This certainly is very encouraging and promises well for the future work of the committee.

CONCERNING THE VARIETIES AND ETIOLOGY OF GLAUCOMA.*

By B. F. CHURCH, M. D., Los Angeles.

THE term "glaucoma" is employed to describe a condition in which there is an increased intraocular pressure. All symptoms and phenomena associated with this affection have their origin and are dependent upon this one condition, increased tension of the eyeball.

Glaucomatous manifestations are divided into three principal groups: 1. Primary glaucoma, in which the increased pressure manifests itself without an apparent pre-existing cause. 2. Secondary glaucoma, a result of some antecedent disease. 3. Congenital glaucoma, usually described as buphthalmos.

While it may be said that primary, or true, glaucoma is produced by the secretion or oversecretion of fluid from the epithelial lining of the ciliary body, evidence seems to bear out the theory that there must co-exist an obstruction to its outward filtration. There are three kinds of fluid within the eyeball: Intraocular, that filling the aqueous and vitreous chambers; blood contained in the blood vessels, and lymph in the lymphatic spaces of the uveal tract and the perivascular lymphatic channels. The amount of blood in the intraocular blood vessels is subject to constant variations, such as alterations in the blood pressure, pressure from the surrounding muscles, and changes in the shape of the iris and ciliary body.

The mechanism which governs the secretion and excretion of the fluids of the eye is so delicately adjusted that, notwithstanding the constant changes which alter the amount of blood in the intraocular blood vessels, or possible stimulation which may increase the secretive power of the ciliary body, intraocular pressure, or tension of the eyeball, in health remains practically the same at all times. This pressure equals a column of mercury 28 mm. in height.

Primary or true glaucoma may be divided into (1) acute glaucoma (acute inflammatory glaucoma), (2) sub-acute or chronic congestive glaucoma (chronic inflammatory glaucoma), (3) chronic non-inflammatory glaucoma (simple chronic glaucoma). Primary glaucoma is not an uncommon disease, and, according to Fuchs, constitutes one per cent of all diseases of the eye. Acute inflammatory glaucoma and the chronic non-inflammatory variety, or simple glaucoma, have the following distinctive differential characteristics:

Inflammatory glaucoma is found most frequently in persons between 50 and 60 years of age. It does not occur in childhood and youth. More women are affected than men. Strongly myopic eyes have almost, if not complete, immunity from the disease. One eye alone may be affected. Whereas simple glaucoma sometimes occurs in children or before middle life. As many men have the disease as women. It is sometimes found in myopic eyes. Hydrophthalmos (buphthalmos) is a disease of childhood; is either congenital or develops in the first years of life, and generally in both eyes.

Etiology.—The predisposing cause of primary glaucoma has to do with age, sex, conformation and refraction of the eye and systemic conditions. According to Priestly Smith, not one per cent of the cases begin earlier than the twentieth year. The few seen in young persons are generally monolateral. Heredity seems to bear a casual relation to the disease. The gouty and rheumatic diathesis and those who suffer from arterial sclerosis, chronic bronchitis and heart disease are liable to the malady. Many observers believe influenza to be a factor in the causation of simple glaucoma. A disproportionate number of cases of this disease is seen in the Jewish race, and also in the Egyptians. There is a relationship between smallness of the cornea and glaucoma. The normal cornea has an average horizontal diameter of 11.6 mm., while the glaucomatous cornea, according to Priestly Smith, is 11.1 mm.

Exciting Causes.—Glaucoma may be excited in eyes predisposed to the disease by worry, overeating, insomnia, fright and neuralgia of the fifth nerve. It sometimes follows injury and hemorrhage into the uveal tract. Instillation of mydriatics, also overuse of ametropic or improperly corrected eyes may bring on glaucoma in one predisposed to the disorder.

The disease under consideration is one of the most serious maladies of the eye which we are called upon to treat. It sometimes comes on very insidiously, and when least expected. A warning, therefore, is given to the busy practitioner to not permit the existence or nonexistence of probable predisposing causes to overshadow the classical prodromes of this affection. It is our duty, and it behooves us all to be alert in discovering its prodromic symptoms and to meet the disease promptly when it arises.

[For discussion see May JOURNAL, pages 157, 158.]

*Read at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April 19-21, 1904

THE PATHOLOGY OF GLAUCOMA.*

By W. H. ROBERTS, M. D., Pasadena.

THE pathogenesis of glaucoma is so intimately associated with its pathology that in considering the latter the former must of necessity be taken up. In order to understand this disease it is necessary to keep clearly in mind the source of supply of the intraocular fluids and the paths they follow in the normal eye. The ciliary body has been proven by Leber to be the chief secreting organ of the eye, supplying a fluid which nourishes the lens and vitreous and replaces the aqueous. Snellen describes the course pursued by this fluid as follows:

> The freshly secreted fluid stands in close osmotic relation to that which is contained within the thin membrane of the vitreous body. A slight excretion of fluid occurs at the back of the eye from the vitreous body into the lymph spaces of Schwalbe in the optic nerve. The chief stream passes over the lens and through the pupil into the anterior chamber, traverses the latter to reach the angle formed by the junction of the iris and the cornea, passes through the meshes of the ligamentum pectinatum, and by diffusion and filtration is taken up into the plexus of veins known as Schlemm's canal. There is no direct connection between the anterior chamber and the lymph spaces, which, according to Schwalbe, exist in Schlemm's canal. The influence of the nervous system on the pressure of the fluid is indirect. The pressure of the fluid regulates the outflow, so that when the afflux is increased a compensatory increase of the efflux occurs.

A small quantity of this fluid passes back through the vitreous and escapes by means of the perivascular spaces in the optic nerve. A certain amount of intraocular tension normally exists, keeping the eyeball in its spheroidal shape, but not exerting sufficient pressure to interfere with the circulation of the eye or to disturb its nutrition.

Knies and Weber have shown that in glaucoma the filtration angle in the anterior chamber is obstructed, preventing the escape of the fluid secreted by the ciliary body, and from this discovery has grown the commonly accepted retention theory as the most frequent cause of glaucoma. Both primary and secondary glaucoma are caused by blockage of the filtration angle by pressure of the ciliary processes against the root of the iris.

Primary glaucoma is usually traceable to some vascular trouble producing congestion of the uveal tract, or to a faulty relation of the lens encroaching upon the filtration angle. Some of the immediate causes of glaucoma given by Priestley Smith are as follows:

Primary Glaucoma.—1. Mydriatics, which act by rolling the iris back toward its base in an eye with a shallow anterior chamber and narrow filtration angle. 2. Old age, with its increased size of the lens and diminished tension of its zonule. 3. Thickening of the hyaloid membrane and vitreous changes, impeding filtration. 4. Small eyes. 5. Heredity.

*Read at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April 19-21, 1904.

6. Hypermetropia, with its excessive accommodation and relaxed zonule favoring anterior displacement of the lens. 7. Congestion of uveal tract.

Secondary Glaucoma.—1. Dislocation of the lens into the anterior chamber. 2. Intraocular tumors. 3. Intraocular hemorrhages. 4. Annular posterior synechia, the result of iritis, which prevents the escape of fluid through the pupil. 5. Anterior synechia, the result of corneal wounds and perforations. 6. Serous cyclitis, in which an albuminous exudate is thrown off, too thick to pass through the meshes of the ligamentum pectinatum, consequently closing them. 7. Cataract operations, in which the iris or capsule becomes engaged in the scar, or from a secondary cataract occluding the pupil.

Troncoso, from his statistics, proves that the high tension is due to deficient exosmosis of the aqueous, which is more albuminous than normal, owing to arterio-sclerosis, arthritis, gout or localized endarteritis in the eyeball. The vessel walls allow the escape of albumin, which, mixed with the contents of the anterior chamber, blocks the filtration angle. An intense congestion of all the tissues of the eyeball follows, associated with a mild diapedesis. The cornea is cloudy, iris edematous, its veins distended and the uvea infiltrated. The vitreous displaces forward the lens and iris, which are crowded into the filtration angle, encouraging retention still more. Gasparrini reports three cases in which there were no demonstrable changes in the front of the eye, but the disease was caused through interference with the posterior ocular lymphatic channels, following neuritis and perineuritis. Very few eyes have been removed during an acute attack of glaucoma, consequently we know but little of early anatomical changes. Birnbacher reports the case of a female, aged 54, whose eye was enucleated on the eighth day of an acute glaucoma. He found the filtration angle partly closed, due to adhesions between the iris and the ligamentum pectinatum. There was a serous choroiditis shown by an albuminous exudate throughout the choroid. The endothelium of the upper two vortex veins was thickened; there was edema of the optic papilla and some depression of the lamina cribrosa. In chronic glaucoma, Czermack and Birnbacher have discovered evidences of inflammation of the sclerotic and uvea, particularly involving the scleral emissaries and vortex veins, producing a chronic periphlebitis and endophlebitis, which result in serious blockage of the circulation. Other observers have noted similar changes in the walls of the arteries and veins of the retina and optic nerve. The pathologic changes found in the anterior segment of the eye in chronic glaucoma have already been mentioned.

The excavation of the nerve is quite characteristic. The sclera at the entrance of the optic nerve is thin and sieve-like, and naturally the weakest part of the tunic. This is pushed back when the tension becomes sufficiently high, together with the nerve and vessels to which it gives passage. The firm sclera surrounding the lamina does not yield to the pressure, but forms the limiting ring for the excavation. Under the continued high tension the nerve fibers, being stretched over the edge of the sclera, become atropic. Around the nerve is usually noticed a yellowish ring caused by choroidal atrophy. Cupping is readily observed by means of the indirect ophthalmoscopic examination and the parallax test. In this test the object lens is moved from side to side, the fundus moving with it, the bottom of the cup following, but at a slower rate of speed. The depth of the cup may be roughly estimated by the direct ophthalmoscopic method, each three diopters equaling one millimeter of depth. The vessels of the nerve bend down sharply over the edge of the cup, and disappear from view for a while, and then reappear with a fainter color and different position at the bottom. Arterial pulsation on the nerve surface is not uncommon in this disease, due partly to the high tension and partly to the spasmodic contraction of the vessels.

To recapitulate: The most characteristic pathological condition found in the anterior segment is the crowding forward of the ciliary body, with adhesions between the base of the iris and the periphery of the cornea, which occludes the angle of the anterior chamber. This prevents the fluid secreted by the ciliary body from escaping via the filtration spaces into Schlemm's canal. Posteriorily we find cupping of the optic nerve, associated with more or less optic atrophy, the extent of each depending on the stage of the disease.

[For discussion see May JOURNAL, page 158.]

TREATMENT OF GLAUCOMA.*

By W. S. FOWLER, M. D., Bakersfield.

THERE seems to be a custom for the writers of papers to be read before medical societies or published in the journals, to review everything that has been done or has not been done in the past, and the writer who attaches the longest bibliography to his monograph expects the greatest honor; but this paper departs from the custom in an attempt to condense in the least number of words possible the most important facts gained by study and experience.

You have learned from the preceding papers what we know of the cause and pathology of glaucoma, and from this knowledge the indications for treatment seem very simple, "to relieve intra-ocular pressure." This generally calls for operative treatment, for the proper escape of the intra-ocular fluid can seldom be permanently reestablished by any other means. But there are some cases which can be successfully treated without operation, and there are very many in which certain auxiliary measures are of great value. Before presenting the subject of remedies, let it be understood that neither myotics nor mydriatics cause any decided increase or decrease of tension in a normal eye, and such slight changes as they do produce are represented by the representatives of this class of drugs, atropin and eserin, the former showing a slight tendency to reduce tension, the latter to increase it.

The action of eserin in glaucoma depends upon the abnormal position of the iris; by contracting the sphincter of the pupil it thins the iris, flattens its folds, and pulls upon its peripheral insertion, tending thereby to open the filtration angle. Cocain is synergistic to eserin in glaucoma; for while its action alone dilates the pupil, it has the power, so much to be desired in this disease, of contracting the ciliary blood vessels and diminishing the sensibility of the ciliary nerves, both results tending to lower intra-ocular pressure, even strong solutions of cocain may be used so long as eserin controls its pupil-dilating power. Morphin eases pain, lowers blood pressure, lessens secretion, promotes contraction of pupil and sleep. During sleep the pressure on the cerebral vessels falls and the pupils contract.

Aperients reduce tension and congestion, especially in patients with constipation. Warmth, food and rest all aid in promoting relief. Ice applied to the closed lids sometimes proves a useful adjuvant to other palliative measures.

To utilize our knowledge of this disease and our remedies I would suggest to the physician, upon diagnosing a case of acute glaucoma, the application of hot compress over the eyes, renewed frequently for from fifteen to thirty minutes; the instillation within the eyelids of several drops of

℞ Eserin salycilat gr. j
Cocain muriat gr. x
Aqua destillata ʒj

repeated every hour till pupil contracts, and the exhibition of morphin to relieve pain and produce sleep. A full hot bath to induce free perspiration, the pa-

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tient being immediately placed in bed, is an excellent preliminary to this treatment, but an immediate and active treatment of the underlying and predisposing general systemic condition is of the greatest importance to supplement and assist the local applications.

Such measures actively carried out will frequently subdue a recent congestive glaucoma even of severe type, and may for a time restore the eye to an apparently healthy state; the cure, however, will rarely prove permanent, and with each recurrence the treatment is less likely to prove effectual; it is useful chiefly as a means of lessening the severity of the symptoms and of bringing the eye into more favorable conditions for operative treatment and the immediate benefit, however great, must not be allowed to obscure the fact that, in the majority of cases, a permanent cure can only be obtained by proper and timely operation.

It is scarcely to be conceived that a perfectly healthy individual, no matter how deformed or out of proportion the structure of the eyeballs, should become the victim of an attack of glaucoma, and experience has taught the writer, in those patients whom no argument could convince of the necessity of an operation, that prompt and thorough treatment of the condition responsible for the disturbance of the circulation and congestion of the venous system, has prevented a return of glaucomatous attacks. Pilocarpin to the production of very free diaphoresis has been a very useful medicament, given subcutaneously until its effect was well established and per os in increasing doses daily thereafter until the intraocular tension falls within reasonable limits.

Treatment of the absolute stage of glaucoma can avail nothing beyond the relief of pain, and this object is more certainly, speedily and satisfactorily attained by the removal of the useless organ than in any other way. Treatment of the various forms of secondary glaucoma is usually surgical, and consists of some variety of iridectomy, the broad peripheral form being most generally useful; but even in these cases the course of treatment given for the acute primary form of the disease sometimes relieves the patient.

I regret that personal experience does not allow me to speak favorably of epinephrin as an agent in the treatment of glaucoma, either for its specific action or as an adjuvant to cocain, for in other conditions this preparation materially enhances the astringent effect of cocain without adding to its action as a mydriatic.

THE TONSILS AS PORTALS OF INFECTION.*

By M. W. FREDRICK, M. D., San Francisco.

ALTHOUGH it is scarcely fifteen years since Gabbi called attention to the frequent association of tonsillitis and pneumonia, the importance of the part played by the tonsils as portals of infection for diseases in distant parts of the body is so great, and the idea such a plausible one, that the subject speedily gained recognition, and has been ably expounded in its different phases by a number of good writers and observers. In taking up the subject again, to-day, before this assembly, it is not done in the hope of adding anything new to what is already known, but rather with the purpose of eliciting the experience of the members present, and of calling attention to the subject on the part of those who have hitherto not taken the interest which the subject well deserves. In one of last May's medical periodicals a writer says: "It is nothing new to have a child complain of an attack of muscular or arthritic rheumatism while an attack of tonsillitis is at its height. The cause is, of course, principally due to rheumatic poison in the circulation." This is plainly an adherence to the old teaching that the tonsillitis is secondary, although about three months before, in the same journal, is contained a report of a paper read by Forcheimer at the fourteenth meeting of the American Pediatric Society in Boston, in May, 1902, wherein he says: "It is a long-established fact that the tonsils are the seat of infection for diseases in remote parts of the body; diphtheria, tuberculosis, pneumonia, scarlet fever, measles, jaundice, appendicitis, being some of the diseases which may be introduced by this route."

In the beginning I should like to state that by tonsils I do not mean the faucial tonsils alone, but that collection of lymphoid tissue in the upper respiratory tract, which has been called collectively Waldeyer's lymphoid ring, and includes the nasal, the pharyngeal, the faucial, the lingual, and the laryngeal tonsils, as well as those patches of lymphoid tissue which are scattered over the posterior pharyngeal wall. All these bodies have the same anatomic structure, consisting, as they do, of crypt-like invaginations of the epithelium surrounded by aggregations of lymphoid cells. I do not understand what Kyle means when he says in his text-book (page 354) that these bodies are not related from a physiologic point of view. In fact, it has been hard in modern times to find any function for these bodies which would justify their prominent position and offset the amount of mischief which they cause. Dr. Bosworth of New York says that if the tonsils have any claim to be regarded as normal organs of the body, their right to such a claim has not been clearly made out. If they are normal organs, nature, in creating them, has been guilty of a crudeness for which there is no analogy in the whole human body, except, possibly, the vermiform appendix. Believing in the wisdom of nature, and the axiom that she ascribes some work to everything she creates, various functions have been ascribed to the tonsils, chief of which was the lubricating of the bolus by the faucial tonsils as it passed through the isthmus faucium. This view has few, if any supporters at present. One has but to consider the short time spent by the food in passing through the isthmus, the relatively large quantity of food, and the smallness of the tonsils, to admit the absurdity of such a view.

The tonsil is not, however, without its defenders. Matheny (*Med. Record*, Sept., 1901) sees in the tonsils a wall of defense for the deeper structures against infectious and inflammatory processes arising in the mouth and nasopharynx, and warns us against ruthlessly destroying this wall of defense. In a similar vein, Manfredi (*Virchow's Arch.*, 1899) describes lymph nodes as protecting the organism in three ways: (1) By filtration; (2) by weakening the virulence of the microorganisms that reach them; (3) by allowing the whole organism to obtain a greater or lesser degree of immunity while the first two processes are going on.

Manfredi's reasoning was applied to lymph nodes in general, and is therefore applicable to the tonsils also. It strikes me that these authors are putting the cart before the horse, as far as the tonsils are concerned, and that what they claim as beneficial functions are in reality sources of danger to the organism. The only really good function of the tonsil is, as far as I can see, the elaboration of a small amount of young leukocytes, a view which I find expressed in George B. Wood's article on "Hypertrophy of the Pharyngeal Tonsil" in *American Medicine* for October, 1903. That this elaboration of young leukocytes may furnish material for a mild protection cannot be doubted. But the amount furnished is so small that the protection afforded must of necessity be quite limited. Another thing to be considered in this connection is that when a protective secretion is overwhelmed by the number of bacteria offered it for destruction it becomes an excellent culture medium for the last comers, thus reversing its role.

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Then the bad function, the absorptive function of the tonsil, comes into play, and how great this is we can readily appreciate when we consider the acute toxemia to which even a mild case of tonsillitis gives rise. Considering the small amount of local change in a limited area, there is no inflammatory disturbance which causes such a decided disturbance of the organism. Pains through the limbs, the back, loss of appetite, inability to work or even to think, all come on within a few hours, to vanish as soon as the local trouble has ceased. A veritable tempest in a teapot, seemingly, if the attack remain solitary, but a thing of grave import if the attacks recur often, as they are apt to do if the conditions of the tissue in the ring are favorable. The patient does not recover completely from the attacks, but ends by presenting a condition of mild marasmus, for which the cause is often sought in other directions.

In spite of the number of articles which have appeared relative to this subject, the matter is alluded to in the recent text-books in a cursory way only; but I am sure that before long the data which have been collected will be elaborated. I know that many of my listeners could, by thinking back, find numerous cases in point. Only three weeks ago I saw a man and wife, both otherwise healthy, who presented a peritonsillar inflammation which was followed in both by an attack of articular rheumatism three days later. Looking back I can find a number of similar cases which I misunderstood, because I adhered to the old way of putting number two before number one.

What has assured the tonsillar theory such a ready welcome is that with it the origin of a number of diseases is explained, whose etiology hitherto seemed most obscure. Take as a salient example rheumatism. Having all the earmarks of an infectious disease, whose causative factor, according to our views of to-day, must be some germ, there was no way to account for the entrance of the germ into the organism. While it was well known that acute articular rheumatism comes on most often after exposure to damp and cold, especially when the patient was fatigued, one could hardly understand how the pathognomonic factor could enter through the skin, notably the best resisting tissue of the body, and the one which was seemingly exposed to the noxa. When, however, we remember that it is under the very same conditions that several forms of tonsillitis begin; and when, furthermore, we consider that acute articular rheumatism is a disease of early life; and when we take into account also the fact that a large number of cases of acute articular rheumatism are known to be preceded by tonsillitis, and that in a great number it is probably present but overlooked, we must acknowledge the plausibility of the tonsils being the starting point of the disease. Garrod found tonsillitis preceding acute articular rheumatism in 80% of his patients, and other observers have found almost as great a percentage. Our attention having been drawn to this etiological factor, I am sure that we shall find it quite often.

The mouth and nasopharynx, even in the healthy individual, are always teeming with numerous bacteria. As many as seventy different kinds have been differentiated, but those receiving most attention are the streptococci and staphylococci, because these are supposed to be the chief offenders in many of the diseases with which we are here dealing. Whether these two are the real causative factors is a matter open to doubt, but the fact that they are so often found in the joints and on the cardiac leaflets has made them objects of suspicion. Perhaps they are not the real offenders, but rather a very fine coccus which has lately been discovered by F. Meyer of Berlin, which he found in the places of predilection, and with which he was able to cause polyarthritis in animals. Very interesting in this regard are the studies of Dr. Menzer of the Berlin Charité, who in a number of cases of acute articular rheumatism, excised part of the tonsillar tissue, and on the proper culture media always obtained colonies of streptococci. However, as he suggests, streptococci have become the fashion since Wasserman's publication, and the real culprit may be overlooked in searching for the supposed one. Whether the short streptococcus found in the mouth at all times is the same as the long streptococcus of acknowledged virulence or merely an innocuous form, is another matter of doubt. The latter view is entertained by Biondi, Kurth, Pobdielsky, Dornberger and others, whereas Hilpert could find no difference between the form found in the so-called healthy mouth and that found in or upon inflamed tonsils.

Another question of interest that presents itself here is: Granted that the starting point for the rheumatic phenomena lies in the tonsils, are the distant manifestations due to the migration of the germs themselves or of their products? Menzer, in the experiments already mentioned, could not find a satisfactory amount of bacteria either in the serum taken from the inflamed joints of the patients or those of the animals experimented on. If we turn to some of the skin affections which are allied to rheumatism, and which are also supposedly due to tonsillar affections, and notice the similarity of these skin affections to those which are caused by the injection of antitoxin and other serum products from which the living organisms have been carefully removed, we must entertain the idea that in rheumatism we are dealing with a modified pyemia, for the production of which the absorptive power of the tonsils is largely, if not always, to blame. An inverted proof is the fact that swelling of the joints simulating acute athritis often occurs in pyemia from other sources.

The next thing that suggests itself is the heart, which is so often affected in rheumatism as to make the connection between the two seem most intimate. And, as a matter of fact, there are numerous observations to prove that often the starting point of a heart lesion lies in the tonsil. I wish to refer to the very able paper read by Dr. Philip K. Brown of San Francisco at the last meeting of the American Laryngological Society, which is still fresh in the minds of many of you. In May, 1899, Frederick A. Packard of Philadelphia reported five cases of endocarditis following acute angina, in three of which the heart was known to be sound before the attack of angina. Singer reports four similar cases. Packard states he has been astonished at the frequency of cases of endocarditis without rheumatism which gave a history of one or more attacks of acute and severe sore throat. Roeger found in 120 cases of tonsillitis, heart murmurs in 20%. In a number of these cases the murmurs developed after the patient entered the hospital, and in those who already had murmurs on entering, the intensity of the murmurs was increased. In a number of other cases heart murmurs developed in healthy hearts a short time after the attack of tonsillitis had passed off. One difficulty in estimating the connection of these two conditions lies in the fact that the true character of endocarditis has not been satisfactorily determined. Litten says that there is no such thing as primary endocarditis, and would make two great classes of secondary endocarditis, septic and mycotic. In regard to this second class, Lenhartz has failed to find any specific germs in the cultures made from the valves of rheumatic hearts; at least he has not found the germs which have been looked upon as the specific exciters, so that we are to look upon this condition either as a septic one, or to conclude that the specific germ for rheumatism has not yet been found. In fact, the subject of rheumatism as a whole will have to be gone over far more carefully than it has been before we can get conclusive reasoning on this matter. The real and

pseudo-rheumatic conditions will have to be better separated, and the bacteriology revised.

Pleuritis is another condition which has been traced directly to tonsillar origin. The cases are somewhat isolated as yet, but there is no doubt that this will explain many cases of pleurisy which have hitherto been classed as cryptogenetic.

Another disease of obscure origin which is interesting in this connection is chorea, the dependence of which on rheumatism has long been known. As long ago as 1880 Leube urged the chemico infectious nature of this disorder, and it is interesting to note that Packard has observed two cases of chorea coming on without intervening rheumatism. Rheumatism has long had the reputation of being one of the diseases which are transmissible to the offspring, the idea being that the hereditary taint consisted in the composition of the blood or the susceptibility of certain parts to rheumatic insult. In the light of our present subject I should rather be inclined to look upon the peculiar conformation of the tonsillar tissue as the thing which is inherited. That this can be and is inherited we well know. Think how enlarged tonsils, adenoid hypertrophy, etc., due to a peculiar lymphatic diathesis, run in families.

Peritonitis, orchitis, hydrocele, mumps, and even an affection of the spinal cord have been traced to attacks of tonsillitis. Forcheimer refers to five cases of jaundice, appearing in each case in less than ten days after an attack of tonsillitis, all gastrointestinal affections having been carefully excluded. He also speaks of two cases of appendicitis which he traces directly to tonsillitis. Cases of nephritis, phlebitis, acute yellow atrophy of the liver have also been described which are supposed to have originated in throat affections. The origin of the so-called rheumatic skin affections and of the febrile exanthemata is also laid in the same locality. How much truth there is in these claims time and observation will tell.

I do not want to leave the subject without speaking of a condition which we see daily, and which is of more importance to us than the occasional acute disturbances for which the lymphoid ring has been blamed. Without bringing up the much-described condition of lymphoid hyperplasia of the oropharynx and its sequelæ, I want to point to the fact that many of these cases are suffering from chronic toxemia. The toxins are prepared either in the deep crypts of the tonsils or in the deep reduplications and folds of the adenoid tissue. Often there will be a chronic abscess in the peritonsillar tissue. From these a constant stream of toxins with all its depressant effects is entering the system, and the removal of these foci alone will produce wonderful results. We have all been highly gratified to notice the improvement, especially in children on whom we have successfully operated for removal of the lymphoid ring hyperplasias. From pale, listless, flabby, flat-chested children, they are transformed in a few months into red-cheeked, bright-eyed, full-chested, ambitious little men and women, whose main difficulty lies in getting enough to eat. Before that they looked like victims of chronic alkaloidal poisoning, and as a matter of fact they were the victims of chronic poisoning, the poison being the toxin elaborated in the tonsil and its allied tissue. We are inclined to think that the improvement is due wholly to the improved oxigenation of the blood through the better facilities afforded for breathing, but I think a large part of the improvement due to the change cited above.

Not only the flora of the mouth, but also the fauna has been accused of pathological mischief. While as yet a theory which will be received with caution, still it is worth mentioning that Paul Cohnheim of Berlin has attributed the origin of carcinomata of the œsophagus and stomach largely to infusoria, trichonomads, which have been found in the mouth, coming from diseased teeth. That dental caries is responsible for the presence of a large number of bacteria is undoubted, and emphasizes the importance of the care of the teeth, and their frequent examination, even by the physician.

I have purposely avoided saying anything about the role played by the tonsils in the production of tuberculosis; not that I underrate their importance in this regard, nor because I could not find numerous references to this point, but because I was afraid that it would carry both myself and those who may be kind enough to discuss this paper, beyond the time limit, were I to take up this phase of the subject.

In closing, I want to acknowledge my indebtedness to Dr. Frederick A. Packard of Philadelphia, whose paper on "Infection Through the Tonsils," read before the New York Academy of Medicine in December, 1899, was the best and most complete article I could find on the subject.

REPORT OF CASES SIMULATING GRAVE MASTOIDITIS.*

By FRED BAKER, M. D., San Diego.

STRANGE or rare conditions involving difficulties of diagnosis in diseases which endanger life or the integrity of important function are always worth reporting. The following case fulfills these conditions, while the succeeding cases, though less interesting and important, illustrate another phase of the same disease:

Case 1—J. C., male, age 19, was referred to me May 22, 1900, by Dr. J. C. Larzelere of Escondido, for polypus in the right ear. I removed the polypus, which was protruding through a medium-sized perforation of the drum, with snare and forceps, and cauterized the stump with pure chromic acid. Healing was rapid, and I discharged him on July 6, 1900, with a sound drum membrane and hearing distance equal to 9-48 by the watch test. At the start, marked dizziness was present, so greatly aggravated by pressure on the polypus that operation was extremely tedious, and somewhat difficult. The patient suffered from severe pain, centering in the mastoid, but there was no swelling, no great aggravation of the pain on pressure or percussion, and the temperature was normal during the whole time that he was in my charge. At first I feared that a mastoid operation would be necessary, and warned the patient's friends of the fact; but as all unfavorable symptoms gradually disappeared, the idea was soon abandoned. February 22, 1901, the same patient drove to town, a distance of about forty-three miles; but as I was absent from home I did not see him until the morning of the 23d. The history given was as follows: About ten days before, he had been taken down with "grip." There were several days of chilling, with high fever, after which he improved. Then he got up and attempted to do some work. Almost immediately he had a severe earache on the side previously affected, resulting in rupture of the drum and a very free discharge. Supposing that now the ear disease was the only important matter, he came directly to me. I found a large opening in the lower anterior portion of the drum, from which issued a free mucopurulent discharge; temperature 101.2; pulse not recorded, but averaging rather slow for the temperature, this proving the rule throughout the sickness; general appearance very bad, which I ascribed to the forty-mile drive of the preceding day. Patient complained of some dizziness and of very severe pain in the ear and mastoid. The mastoid region was swollen, somewhat boggy to the touch, and both pressure and percussion increased the pain. His mother reported that at midnight he had suffered from a severe chill, followed by high fever, which had subsided gradually. Nearly every case of suppurative otitis media accompanying "grip" which has come under my observation has been complicated by more or less mastoid pain. Every such case has made me anxious, but so far, possibly by a large measure of good luck, I have not operated in a single case, nor has any such case proved to be a mastoiditis. A considerable series of such cases without the necessity for operation has made me willing to take some chances, so I did not operate, but began palliative treatment. Just at midnight I was called by telephone; found patient shaking as if in an ague chill, and temperature at 105.5; was able to control the chill and temperature very quickly with whisky, phenacetin and dry heat, and by morning the condition was almost the same as the day before, the temperature having gone down to 101.4. Early in the morning (February 24), I called in consultation Drs. T. L. and C. L. Magee. Dr. C. L. Magee made a blood count, reporting a trifle less than 9,000 white blood corpuscles to the cubic millimeter. We decided that he did not have

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streptococcic infection to account for the chills, and that the count gave rather positive indications against serious mastoid invasion. I explained the situation and chances to the mother, received permission to operate, made preparations for rapid work should it be necessary, and sat down to await developments. For twenty-four hours I practically lived with my patient. At about 1:30 of the morning of the 25th he had another sharp chill, but it was of shorter duration than that of the night before, and the temperature only reached 104. A blood count early in the morning showed the white blood cells at less than 9,000. There was no increase of pain, and the temperature during the day ranged about 101. I had twice given a sharp calomel laxative, and by the evening of the 25th had induced a moderate diarrhea, which showed the typical pea soup discharges of typhoid fever. The bowels were slightly tender, petechiæ were found the next day, and, to our surprise, instead of "grip," we had on our hands a typical case of typhoid fever of moderate severity, which ran a normal course to complete recovery. All the grave aural symptoms subsided rather promptly, and on April 8th I allowed the patient to be taken home on a stretcher, with his ear drum again healed, hearing distance 8-48 by the watch test; no pain or tenderness present, but occasional slight dizziness on sudden motion. He made an uninterrupted recovery, and up to some time last year, when last heard from, had had no recurrence of aural disease.

Case 2—R. S., male, age 7. Patient called at my office on the afternoon of December 26, 1899. He was suffering from a moderate attack of earache on the left side. The drum was only slightly congested, and the pain subsided with free doses of phenacetin and dry heat. About midnight of the 27th the pain returned, and the drum perforated within two hours. I was not called, and did not see the patient till nearly noon of the next day. There was very free serous discharge from a large perforation in the posterior portion of the drum. Temperature normal, and only slight pain. The ear was treated with antiseptic irrigation, and did nicely till January 1, 1900, when the patient had a slight chill, pain in the ear, and mastoid began, and temperature began to rise gradually. The pain was intermittent, and at times very severe. There was constant tenderness on pressure over the mastoid. This condition continued for ten days, during which time the temperature once reached 103. During the whole time the tongue was heavily coated with a marked brown discoloration, and I suggested to the mother that the symptoms were suggestive of a walking typhoid. The mother was indulgent and the boy unmanageable, so that I was unable to keep him in bed until the mother received word of the death of a friend after mastoid operation. Then I was able to keep the boy in bed. He began improving at once; the temperature gradually dropped to normal, pain disappeared, and about January 19th the drum had healed, and I discharged him February 6th, with normal hearing.

During the sickness I felt sure the pain was neuralgic rather than inflammatory, and had little expectation of being obliged to operate. I am unable to account for the continuance of the fever, but believe it was due to some autointoxication. In the light of the history of case 1, and in view of the gradual access of the graver symptoms, my guess of walking typhoid, not very seriously made, may have been a true one.

The patient had a large adenoid to which his ear disease was probably due. This I removed with very marked benefit as soon as he was in condition to stand the operation.

Case 3—M. B., female, age 13. Referred by Dr. C. J. Baker for earache; is of neuralgic habit. For several years has been subject to occasional attacks of sharp pain in the right ear, usually accompanied by slight congestion of the drum. Her mother gives the same history, extending over thirty years, but only once threatening suppuration. January 8, 1897, patient came down with an unusually severe attack of chickenpox, confining her to her bed for five days. She was convalescing, and had been in school a day or two when she had a sharp attack of "grip." She was just recovering from this when a severe pain in the right ear led me to assume charge of the patient. I found the drum extensively congested, but not bulging. Ill-advisedly I did not perforate, and was much surprised that perforation took place in the night with little, if any, increase of pain. When I saw the patient in the morning there was a very free serous discharge from an opening, the location of which I did not note. Pain was continuous but not severe. I did not take the temperature. In the early evening she had a slight chill and steadily increasing mastoid and ear pain. For three days the temperature ranged from 100.5 to 103.5; pain and tenderness over the mastoid were severe. There was, however, little swelling or edema, and pain was increased about as much by superficial as by deep pressure. Two aurists called in consultation favored an operation, but I took the responsibility of a refusal, and the patient made a perfect recovery, with hearing quite markedly above normal.

In April, 1903, the same patient had an attack of "grip," which kept her in bed several days, and out of school nine days. On the morning of April 14th she went to school for the first time after her sickness. About 2 P. M. her right ear suddenly began to pain her. She came to my office about 3:30, with the ear very considerably injected. I sent her home, and at 5 o'clock, having learned discretion from her former otitis, I perforated the drum freely. There was quite free bleeding, but it was well into the night before a serous discharge began. During the next twenty-four hours all the classic symptoms of mastoiditis, except the chill, supervened. For three or four days mastoid pain was severe; there was a moderate continuous fever, the temperature once reaching 103. There can be little doubt that some aurists would have considered operation necessary; but without operation the patient made a rather rapid recovery, again attaining supernormal hearing.

These cases have been reported to show that the last word has not been said about suppurative otitis media by those aural surgeons who maintain that all patients must be operated upon where mastoid pain of severe character persists over thirty-six hours, if accompanied by high temperature, especially if there are also chills of apparent septic character.

I believe this dictum to be true in uncomplicated suppurative otitis media when the discharges are distinctly purulent in character, and in such cases a blood count practically always shows marked increase of the white blood corpuscles; but in serous otitis, or where there is evidence of grippal complications to account for pains of neuralgic type, long chances can be taken with a reasonable certainty of safety.

CONGENITAL DISLOCATION OF THE HIP*

By P. C. H. PAHL, M. D., Los Angeles.

IT IS THE aim of this paper to briefly review the literature on the subject at the writer's command; to report a series of patients operated upon by Dr. Lorenz during his visit to Los Angeles in November, 1902, which came under my observation; and to state the conclusions of the author deduced from the literature read and the patient observed.

Definition.—A condition where the head of the femur is not in the acetabulum when the child is born.

Cause.—The dislocation or misplacement may occur during embryonic life, as shown by Heusner, who observed a five months' fetus with a dislocated hip presenting a lax condition of the joint. The head of the femur could be readily rotated and placed above and below the socket. The ligamentum teres being long and attenuated, the socket shallow, especially posterially where the head had been resting for some time, and the condition about the joint showing plainly that the head of the femur had never occupied the acetabulum.

The dislocation does occur during labor, as shown by a specimen observed by the writer, the right hip being forcibly dislocated, and upon examination does not show a distinct tear in the capsule, nor is the ligamentum teres entirely torn, and from the appearance of the capsule, and the ligamentum teres, one could readily imagine that the condition presented would become identical with those found in congenital hip dislocation in afterlife.

Frequency.—Dr. Leonhardt Rosenfeld, of Nurnburg, reports 917 cases of deformity of the lower extremities in which congenital dislocation of the hip occurred 155 times, or 16.9%. In the 155 cases, 20 occurred in the male, or 12.9%; 133 female, or 87%; 7 times as frequently in the female as in the male. In the female it occurred on the left side 52 times, or 33.5%; on the right side it occurred 54 times, or 34.8%, and double in 49 cases, or 31.7%, showing that the one-sided dislocation occurs more than twice as

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frequently as the double, but occurs with about equal frequency in the right and left hips. In the 20 male cases, it occurred on the right side in 9 cases, or 45%, and on the left side 6 times, or 30%, and double occurred 5 times, or 25%, showing that in the male the dislocation occurs 3 times as frequently single as double, and that it occurs more frequently on the right side in the ratio of 3 to 2.

Associated Congenital Deformities.—In one case there was congenital torticollis; in one case congenital dislocation of the shoulder; congenital clubfoot in two cases, the clubfoot occurring upon the dislocated limb.

Associated Acquired Deformities.—Severe scoliosis occurred 7 times, 3 times in cases of double dislocation. Flat foot twice. Flexion of the knee joint of the well leg once. Knock-knees once, and bowlegs in one case of double dislocation. In five cases there developed acute hip joint disease, occurring twice on one side of double cases.

Diagnosis.—While an early diagnosis is most desirable, it is frequently not made owing to the fact that the symptoms of early childhood simply amount to a lessened degree of motion of the affected limb and a slight flexion of the thigh. It may be possible that not until the child is expected to walk does the mother notice anything wrong. The child is backward about walking, and when it finally does begin, the parents may not have any intimation that there is anything wrong with the hip, and the child may be from 3 to 6 years old before it develops a distinct limp. This limp which develops so insidiously is of a progressive nature, and by the time the child reaches adult life, through adduction and flexion, it may be unable to place its toe upon the ground, and in the average case, during weight bearing, a shortening of two inches results.

Inspection.—The natural contour of the hip is lost, being more rounded in appearance. The gluteal fold is displaced upward. In advanced cases there may be a tilting of the pelvis toward the affected side. The limb may be adducted and flexed; there may be shortening, and there is always under development, the thigh being from 1 to 5 centimeters less in circumference.

Palpation.—Of great value is the knowledge to be gained by palpation. If you place the thumb a little outside of the femoral artery, midway between the anterior superior spine and the symphysis, the fingers over the trochanter, and rotate the limb with the other hand, you can distinctly feel the head of the bone in the acetabulum, in normal cases, while in luxation the acetabulum is empty and the head of the femur is usually found somewhat above or behind the socket. Sometimes the head and neck are more or less undeveloped, the leg may stand in a neutral position and be easily rotated externally, the amount of rotation depending entirely upon the attenuated condition of the capsule. In some cases the foot can be brought in contact with the face, and if the patient is laid upon the face and the thigh hyperextended, the head can be felt subcutaneously. To test the up-and-down laxity of the joint, one places the hand over both the anterior-superior spine and the trochanter, and with the other hand shoves the limb up and down. This is a very important point, even in the most initial cases. It must, however, be borne in mind that in examining young children there are many obstacles, such as crying, resisting and fighting the physician; as these children are liable to be hypersensitive about the muscles and parts of the joint, an anesthetic may often be necessary. This condition is distinguished from hip-joint disease by the absence of pain and night cries. The limb is always found abducted in the first stage of hip-joint disease, motion is restricted and painful; a thickened condition about the joint and muscular spasms are always present. There is a rise in temperature, and the general condition of the patient is one of increasing constitutional disturbance; a large majority of patients will react to tuberculin.

Our attention has recently been forcefully directed to the importance of the early recognition of this condition, in order to mention some of the symptoms that are present in early infancy. We are to remember that it is often associated with other deformities—that it occurs more frequently in the female than in the male—that it may occur on one or both sides. It may be noticed that the affected limb is not moved by the child as freely as the other—that the joint shows too much relaxation—that the acetabulum is empty, and that the head is usually found posterior to the acetabulum—it only assumes the position above the acetabulum as the child begins to walk and subjects the deformed limb to weight bearing, and that it admits of exaggerated rotary motion.

X-ray pictures are valuable in proportion to the skill with which they are taken. At least four exposures are necessary to demonstrate all that the X-ray will show. One picture should be made with the feet vertical and parallel with the patient lying upon the back. One taken in extreme internal rotation; another in extreme external rotation, and a fourth with the limb forced upward to its greatest extent.

Treatment.—Hippocrates recognized this condition, and treated it the same as he did traumatic dislocation; he observed that unless the operation was performed in very early life it was impossible to do; also that the results were unsatisfactory. Since the time of Hippocrates, there had been little written or said upon the subject until the beginning of the nineteenth century. In France, Germany and England, after a thorough anatomical analysis of the condition, an attempt was made to treat it by mechanical appliances, thinking it could be cured by applying extention for prolonged periods.

In 1847, Brabaz reported 15 cures that he had been able to make during a period of 12 years of conscientious hard work in a large practice. These were effected by from four to five months' extension with heavy weights, following which he would attempt, by abduction and manual force, to reduce the dislocation. Reduction was usually followed by a very marked inflammatory reaction, which he considered necessary in giving the joint stability. He constructed a form of stretcher with velocipede attachment, enabling the patient to exercise in the horizontal position. Not until there was a sufficient fixation in the joint was the patient permitted to get up, and when he did get up, he was given wheeled crutches. He then received liberal massage, electricity, douches, etc., having practically many of the ideas at present used. The treatment usually covered a period of two years. Had this man had chloroform, plaster of paris, antiseptics and the X-rays at his disposal, he certainly would have worked out a method of treatment which would have been followed at the present day. In 1888, Reiher attempted to treat congenital hip dislocation by resection of the joint. Margary and Heusner attempted to deepen the shallow acetabulum. It was also in this year when Poggi reports his first successful result following this method; afterward Hoffa worked out and elaborated this operation, until it came into universal use.

The operation is performed as follows: An incision ten or fifteen cm. long is made along the border of the trochanter major, between the tensor vagine femoris and the gluteus medius down to the capsule, which is also opened in the direction of the neck; the ligamentum teres is divided, the head is crowded to one side and the socket is exposed; this is then deepened and enlarged by large spoon curettes for the purpose; the enlarging is not done perpendicularly, but in the directions forward and upward, in order to better receive the antiverted head. The

socket should not be made too deep, and should be made considerably wider than the head in order to prevent interference with motion. The leg is placed in plaster in slight abduction, and allowed to remain three weeks. The plaster is then removed, and after the fourth week the child is allowed to get up; massage is given to the glutial muscles, and the child is encouraged to ride a velocipede.

Hoffa reports out of 150 cases no mortality, and that he practically always succeeded in keeping the head in the deepened cavity, and in children under eight years had practically never gotten ankelosis. The bloodless operation was again resurrected by Brodhurst, of London, who accomplished it by performing numerous tenotomies about the joint; also by Post, of Boston, and especially by Paci, of Pisa; the latter published the results of his method of operating, especially for traumatic dislocation, in 1887. He reduced the dislocation by overstretching the different soft parts by forced flexion, hyper-extention and abduction; after having reduced the limb, it was placed in plaster of paris in an extended position and a weight of 4 to 10 kg. applied and allowed to remain for four weeks; then the plaster was removed and the patient kept in bed with extension for four months; after this, the limb was placed in flannel bandages, massage, electricity, etc., applied, and the patient allowed to walk on crutches for four months more. His results were not especially satisfactory, though he occasionally made a reposition, but usually the results were transposition, the head being found in the region of the anterior inferior spinous process.

Dr. Lorenz, after being for several years a follower of Hoffa, perfected the technic of the bloodless method in its present general conception. He did away with the long period of extension by weight and screw which the operation had previously covered, and made it an operation of bloodless plastic surgery, not usually consuming over an hour, and the limb being placed in hyperabduction, hyperextension and outward rotation. His after-treatment differs widely from that of the foregoing bloodless surgeons, in that Dr. Lorenz's treatment has no period of confinement in bed. The treatment only consists of a cast, which does not bind the limb to the body, but holds it in a certain position, leaving the lumbar vertebræ free to facilitate easy locomotion. The patient walks as soon as the immediate effect of the operation has passed. The plaster cast is allowed to remain six to eight months, at which time it is replaced by one applied with the limb in a more improved position, making the period of treatment practically from one year to one year and a half.

Dr. Lorenz reports that in 160 patients operated upon, the posterior dislocation reoccurred in only five cases. The anterior displacement is much more frequent, often occurring under the first cast; while the anterior displacement is an improvement over the posterior, it is far, however, from being a cure, and another effort must be made to place the head in the proper position.

Frequently cases arise which demand operative interference, such as anti-version of the head of the femur, which necessitates an osteotomy; an hour-glass contraction of the capsule, in which the capsule had to be laid bare and incised in order to allow the head to pass through. These are minor operations as compared with the gouging out of the acetabulum as performed by the bloody method.

Lorenz reports in his book of 1900, in 102 cases of single dislocation 61, and in 110 hips 55 children with double dislocation, 47 cases in which he secured anatomical results; among those not reported as good anatomical results, there were many in which the cosmetic and functional results were equally desirable. Consequently, it may be seen that both Hoffa and Lorenz, pursuing their widely different methods, report all their cases practically cured or much benefited.

However, in the hands of other surgeons, the Hoffa method, which necessitates a severe surgical operation, is by no means unattended by danger, as in cases of sepis, which sometimes occurs, the child may lose its life or the function of the limb be materially impaired. If sepsis does occur, motion is either restricted or entirely lost. While this method undoubtedly has its place, it should be resorted to only after the bloodless method has been tried and found insufficient.

Such results as those obtained by Dr. Lorenz, no one following his method has been able to procure. Following this method, Kolliker reports in 25 cases of single dislocation 2, and in 13 cases of double dislocation no anatomical results. In Hoffa's experience 95% became reluxations. Schede, in 102 cases, reports 13 restitutions and 30 transpositions.

The Lorenz method is not entirely unattended by danger, as in 450 operations he reports 11 fractures of the femur, 1 of the pubic bone, 1 of the ilium, 3 temporary paralysis of the nervus peroneus, and 5 of the nervus cruralis, 3 permanent paralysis of the nervus ischiaadicus, 1 gangrene of the entire leg in a 13-year-old girl, probably caused by a too tight plaster cast, and 3 deaths from chloroform. Narath's hernia is reported several times, and frequent stiffness about the joint, though only 2 cases remain obstinate.

Conclusions.—In the cases observed by me, scoliosis was present in every case after the removal of the cast, there existing a distinct rotation, a lateral deviation of the spine and an associated deformity of the chest. This condition, occasioned by wearing the peculiar cast so long, I regard with great suspicion, as a patient would better remain with an untreated congenital hip than to acquire a lateral curvature. I have also observed that none of these patients, even after the casts had been removed for three months, were able, unassisted, to flex the thighs upon the pelvis in a vertical position when lying upon their backs, though all were able to do so readily in a horizontal position, this undoubtedly being due to the lax and torn condition of the adductors. The procedure of tearing these muscles during the operation seems to me a questionable one, and I think should be superseded by a period of stretching by traction previous to the operation or by spliced myotomy. In pronounced antiversion, a sub-trochanteric osteotomy should be done previous to the attempted reduction, and where there is little stability following the operation there should be a supplementary bloody operation involving incisions of the capsule, thereby insuring the passage of the head through the restricted capsule, and a shortening of the ligamentum teres accomplished by passing this ligament through a hole drilled through the head of the femur; where the capsule has been torn by the manipulation, as in a case observed by Dr. Sherman, the damage can be repaired. When there is absolutely no acetabulum in which to fasten the head, the Hoffa method of deepening the cavity should be employed.

The period of cast-wearing should be reduced to the minimum and the pelvis maintained in as nearly a normal position as possible. The after-treatment should be vigorous and diligently executed, consisting of electricity, massage and resisting exercises.

Early attention should be given to the scoliosis. If there is any shortening, it should be corrected as soon as the limb can be brought and maintained out of abduction.

Report of Cases.

Case No. 1.—L. W., female, first child; normal labor; weighed 6 lbs.; walked at 2 years; sickly child up to 3 years of age; developed inguinal hernia on left side; was clumsy in her movements; fell easily and limped slightly.

Seen when 5 years old; normal weight, height and chest circumference; left limb measures 2 cm. short, 2 cm. less in circumference middle of thigh; acetabulum empty. Child does not limp while under excitement of examination, but mother says child limps ordinarily. No especial laxity of the joint.

Operation at Good Samaritan Hospital, November 14

1902, by Dr. Lorenz. Reposition was easily made, and the doctor pronounced stability fair. Temperature did not run over 99.5° F.; left hospital in one week, returning to Arizona. Cast in second position applied at end of eight months. Cast in third position three months later; after remaining in this position three months, the cast was permanently removed.

Child is three pounds under weight, one inch under size; middle of thigh measuring 3 cm. less than the right, and 1.5 cm. shorter. There is a decided thickening about the joint, which is firm and resisting. The child walks with a limp, and has a decided scoliosis, left lumbar and right dorsal. The action of the adductors is entirely lost. Result may not be anatomical, but it is much better than a transposition.

Case No. 2.—T. B., first child; father 59, mother 40; prolonged labor; vertex presentation; mother did not feel motion of child during period of gestation; patient thrived but had no natural movement of limbs or head for twelve months. At the age of 2 years, mother observed right leg shorter than other. At 3 years and until date of operation, the patient walked with the assistance of one hand.

Examination shows a very fat girl, 4 years old, four pounds over weight, one inch over size; very slow mentality; right limb measures 3 cm. short; joint very lax.

Operation by Dr. Lorenz at Medical College, November 13, 1902. Reposition readily accomplished. Left hospital at the end of one week; highest temperature 100.2°. First cast removed June 21st. Result, transposition. Patient etherized and head of femur replaced and cast applied in second position. September 9th second cast was removed and one applied in third position, which remained until December 9th, when it was permanently removed.

Head of the femur is apparently in perfect position, though child has a swinging limp. X-ray picture No. 4 taken March 15th shows anatomical result.

Case No. 3.—E. H., female, first child; 11 pounds; vertex presentation; dry birth; strong infant; walked at about 15 months, but right foot dragged and was noticeably wrong. Always well nourished, but clumsy and inclined to fall when running; has a distinct limp.

Blond girl, 6 years old, 5 pounds over weight, 1.5 inches over size, 1 inch over normal chest measurement; right limb 3 cm. short; joint very lax, marked loss of contour, affected side much more rounded.

Operation November 13, 1902, Medical College, by Dr. Lorenz. Reposition readily produced. Left hospital at the end of one week. Highest temperature 100.6°. Came back June 29th, cast removed and limb placed in second position because of slight antiversion of head of femur; limb was rotated inward and a cast applied which extended below the knee. September 16th, when this cast was removed, the head was found in good position, and a cast in third position was put on. This remained on two months, and at the end of that time was permanently taken off.

The patient shows a slight right lumbar and left dorsal scoliosis; the adductor group is almost entirely destroyed; patient limps a little, but judging from the X-ray picture should pronounce it an anatomical result.

THE ETIOLOGY OF INFANTILE ECLAMPSIA.*

By JAMES M. FRENCH, M. D., San Diego.

THE term infantile eclampsia is used to designate a type of convulsive seizure, rather than a condition peculiar to infancy. Several writers, indeed, have given to the word "infant" in this connection a breadth of meaning even greater than that which it has in law and refer to the occurrence of the same kind of convulsions in adults. For the present, however, I desire to consider the subject only in its relation to infants and young children. The term "convulsions of children" is to be preferred.

No definition of these convulsions is complete which does not recognize their similarity to those of epilepsy. The seizures are often identical, yet I do not believe that there is necessarily more than a resemblance. This is, however, one of the questions on which I hope to hear an expression of the opinion of other members of the society. I have elsewhere defined infantile eclampsia as "convulsive seizures like those of epilepsy, occurring during infancy and early childhood, generally as a result of toxemia or reflex irritation, and sometimes developing into epilepsy." It is a neurosis, not an organic disease; it can hardly be called a symptom, for it has more of the nature of an accident that may occur at the onset of many diseases or interrupt their course.

In studying the etiology, there are for consideration an inherited or acquired predisposition and an immediate, exciting cause. First among predisposing influences, we have the abnormal excitability or instability of the nervous system which is often recognizable as a family peculiarity. Some writers, however, regard this as an evidence of more than usual weakness in the control exercised by the inexperienced and untaught cerebral centers over those of the spinal cord during the first years of life. The predisposition is to be regarded as inherited when there is a history of similar convulsions, or of insanity, epilepsy, hysteria, or other neurotic disease in other members of the family, more particularly if it has been prominent in the parents or grandparents, and when one or both parents are drunkards. The children thus predisposed are most liable to become confirmed epileptics. Lancereaux was one of the first to recognize the influence of alcoholism, but it is perhaps not sufficiently emphasized at the present time. As a result of it we see not only an entire family of children afflicted with convulsive weakness of the nervous system, but it is sometimes possible to pick out the children that have been begotten after the beginning of a dissipated life or during periods of drunkenness. Periodical drunkenness in the parents, I believe, accounts for many of the instances in which only certain members of the family suffer from convulsions or become epileptic. A history of tuberculosis, diabetes, or syphilis in the ancestry is also considered a possible source of abnormal nervous irritability.

Another important predisposing influence is malnutrition. It is perhaps, in part at least, as a result of malnutrition that rachitic children are predisposed to general convulsions as well as to laryngismus stridulus and other localized spasms that do not strictly belong to the class under consideration. Possibly, however, the pressure of the deformed cranial bones may have its influence. If so, the seizures are induced in much the same manner as those of epilepsy arising from the growth of gummata or exostoses within the cranium. Gowers, however, believes that there is in rachitic children an "excessive activity of the centers of the brain and cord on which reflex spasm and convulsions depend." The infant that is feeble from birth, the one with congenital syphilis, the hydrocephalic infant, all these are similarly predisposed.

But although a large ratio of the children affected with infantile eclampsia exhibit a predisposition,

*Read before the San Diego County Medical Society.

there is no good ground for the assertion that an abnormal instability of the nervous system must exist in order to render such seizures possible. The most vigorous child, free from discoverable hereditary taint, may be overwhelmed by either a chemical or a mechanical irritant; but such children rarely have a succession ot convulsions. Gee reports 56 cases in a total of 102 in which no predisposition was discoverable. There can he no douht, however, that the existence of a predisposition renders any of the exciting causes more effective, and it is for this reason that the most trivial irritation will sometimes produce a seizure or a series of convulsions.

Most authors state that boys are more susceptible than girls, although in epilepsy women are somewhat more frequently affected. In my own experience, sex has not appeared to exert any influence. Nationality has its bearing on many cases; the Latin races are unquestionably more susceptible to convulsive seizures than are any others.

There are a great many exciting causes; so many indeed that there is no longer any excuse for the consideration ot an idiopathic origin. It is a no more plausible explanation of a case than was the more ancient doctrine that the seizures were the work of evil spirits.

Cases not infrequently occur in practice for which it is exceedingly difficult, if not impossible, to give a satisfactory explanation and in such cases it is generally better to wait a few days for further developments than to hazzard an improbable guess

A good deal has heen written about misguided waves of nervous influence, katabolic discharges of nerve cells and other unknowable forces as the immediate source of the convulsive movements. The more recent theory of neuron action helps us to understand the possibility of such discharges, it is true, but for the present comparatively little can be gained from attempts to further elucidate the actual occurrences outside the physiological laboratory. It is noteworthy, however, that Berg, in a recent article, advocates the theory advanced hy Schroeder van der Kolk, that the accumulation of carbon dioxid in the blood, following the initial arrest of respiration, is the immediate exciting cause of the convulsive movements.

The exciting causes belong for the most part to one or other of two classes, namely, the direct, or symptomatic, and the reflex. The former class includes all those cases in which the stimulus acts directly upon the nerve centers. The most important stimuli acting thus are fever and toxemia, but fever is gradually giving place to toxemia in the numerical estimation of causes. Whether febrile or toxemic in origin, most of these seizures represent the chill of an adult, but a chill, after all, is only a modified convulsion. Before the action of the bacterial poisons was recognized, high temperature was looked upon as the origin of nearly all convulsions that occurred at the beginning of the acute infectious diseases or during their course. The only form of toxemia then recognized was that resulting from uric acid, lead, and other mineral or vegetable poisons. There are still some authorities who support the view that fever is the most important convulsive influence, especially with reference to the paroxysms that occur during the course of a disease when the temperature rises rapidly to an unusual degree. That many of the toxins produce convulsive action has beeu repeatedly demonstrated, and I believe that most attacks which mark the onset of an infection are of toxemic origin, as maintained by Henoch and others. Although the temperature may be high, the spasm results from the action of the bacterial poisons on the nerve centers, chiefly those of the cerebral cortex or pons Varolii—the convulsion center of Nothnagel. It is thus a result ot the same cause that produces the fever. This view is supported by the fact that the time of the convulsion does not always coincide with that of the greatest rise of temperature. In measles, smallpox, and sometimes in scarlet fever, the spasm may occur before the temperature has reached sufficient elevation to justify the supposition that it is due entirely to heat, and the subsequent rise of temperature is often so great and so rapid as to render a repetition of the convulsion much more common than it generally is, if this were the only influence producing it. Initial convulsions are generally single, except in foudroyant cases. They are rare in pneumonia, although the fever is high, except in young infants and when the lungs are extensively involved. Steiner's suggestion that they are then a reflex result of the local irritation of the lung has not been generally accepted. It seems more probable that they arise from the bacterial toxemia, to which is added, however, a variable degree of carbon-dioxid poisoning. The onset of diphtheria is seldom characterized by a convulsion, for the toxins are rarely absorbed until later in the course of the disease, and even then the temperature is not always excessively high and it is even more rarely rapid in its rise. In malaria affecting young children, the convulsions are often exceedingly severe, although the temperature may be moderate. It is possible, of course, that the plasmodia are the direct irritant, but it seems no less probable that they form a poison analogous to that produced by the bacteria.

Those who favor the view that the eclampsia is due to high temperature urge against toxemia the argument that, as the intoxication persists throughout the disease, the convulsions arising from it should recur at more or less regular intervals. Unfortunately, our means of measuring temperature are better than those for estimating toxemia. The total degree of intoxication is generally believed, however, to coincide with the elevation of temperature. There is still much to be learned in regard to bacterial poisons, but we know that all of them are not alike in action. Many bacteria produce two or more toxins, and these may be very unlike in their action, and very unequal in their tendency to produce convulsive seizures; indeed they may not possess any such power. Much of the diversity that is seen in different cases of the same disease, and many of the departures from the normal course are due to the variations in the relative quantities of the several toxins produced, or to the action of the toxic products of bacteria which are only accidentally present. This variation, too, is the best explanation of the symptomatology of the acute infections. The symptoms by which we diagnosticate the disease are only the manifestations of different forms and degrees of intoxication. It is altogether reasonable, therefore, that a child may become saturated with these poisons and may be destroyed by them, without necessarily being thrown into convulsions, simply because the poisons present are not of a kind that is capable of inducing convulsions. In this light it is much easier to understand how a child may escape convulsions in the presence of profound toxemia, even if toxemia were the only possible exciting cause, than that it should escape them when the temperature becomes high, if fever alone induced them. Yet we often see hyperpyrexia without spasms.

Anemia and altered blood-states, other than those produced by the toxic substances formed by bacteria and animal parasites, are accountable for the eclampsia in some cases. This is illustrated in acute nephritis and less commonly, during childhood, at least, in diabetes and chronic nephritis. None of these conditions is attended, ordinarily, with elevation of temperature, but violent convulsions may occur. We call the condition uremia, although neither urea nor uric acid is probably the cause of its production. The ptomains afford us another example of chemical poison which may act independently of fever, and eclampsia due to alcoholic intoxication is closely related to this class, since the poison is formed hy

micro-organisms. Ptomains are formed in food either before or after it has entered the body, and it is often difficult to distinguish the seizures induced by them from those of a reflex nature having their origin in the alimentary canal. Some writers include in the class of chemical irritants other poisons that are supposed to be produced by intestinal parasites. The anemia produced by the bothriocephalus latus and that of ankylostomiasis, for example, are caused by poisons of this character and not by the abstraction of blood, and it is probable that other parasites may form poisons capable of inducing convulsions. Here again it is difficult to exclude reflex irritation, particularly when a large coil of lumbricoid worms obstructs the lumen of the bowel.

The commonest of the reflex irritants is gastro-intestinal disturbance. When a spasm follows directly upon the ingestion of a large quantity of untainted food, it is safe to conclude that the over-distention of the stomach is the exciting cause—a distention that is increased by the secretion of a pint or more of gastric juice required in digestion. Such paroxysms are often accompanied or followed by vomiting and the character of the food can then be determined. Improper food is an equally common cause. This includes unripe fruit, the swallowing of pits with the fruit, and many coarse or indigestible substances. Even the most wholesome food in too great quantity may prove obstructive and induce a convulsion. Foreign bodies act in the same way.

The late stages of gastro-intestinal diseases in infancy, gastro-enteritis, entero-colitis, dysentery, and cholera infantum are often attended with eclampsia, but these probably belong to the class of direct irritation, the toxemia or the fever inducing the attack. It is possible, however, that they may be due to auto-intoxication, the altered blood state, or the impoverishment of the blood supply to the brain. The convulsive seizures at the beginning of acute anterior poliomyelitis are probably a reflex from the spinal irritation, for there are no recognized convulsive centers in the spinal ganglia. Those of brain tumor, cerebral hemorrhage or sclerosis, and injuries, have a definite pathology and are therefore not neuroses.

Among other forms of peripheral irritation generally referred to are dentition, phimosis, masturbation, compression of the testicle within the inguinal canal, retention of urine, cutaneous eruptions, foreign bodies in the auditory meatus or severe earache due to inflammation and such accidents as scalds and burns. With the exception, however, of those rather unusual cases in which the nature and severity of the irritation is altogether evident, none of these causes is considered, as a rule, until all other possibilities have been excluded. For my own part, I have never seen a convulsion which I felt justified in attributing solely to teething, although I have seen many children who suffered from some form of gastro-intestinal disorder with the irruption of every tooth, and it could not always be attributed fairly to overfeeding, which is so often practiced at this time in order to allay the fretfulness of the infant. Painful or irregular dentition may of course be a cause, but it must be remembered that such irregularities occur chiefly in rachitic and otherwise debilitated infants, already liable to be thrown into spasms by the most trifling disturbance. In scalds and burns there seems to be every reason to attribute the seizure to reflex irritation, and yet there is good ground for referring many cases to an influence acting directly upon the centers, for the convulsion is generally preceded by a period of increased prostration sufficient to suggest the possibility of an altered state of the blood or even an embolism.

Cerebral congestion is the only explanation of some cases, as when the paroxysm follows fright, crying, a fit of coughing in pertussis, or a violent outburst of anger. In such cases the irritation is doubtless direct, but when, as occasionally happens, a fit of anger, grief, or other emotional disturbance in the mother so alters the character of her lacteal secretion as to induce convulsions in the infant, the influence is to be regarded as a long-ranged reflex. A thorough search for possible sources of irritation will often enable us to avoid what might later prove to be an incorrect explanation, as in a case in which, as a last resort, I had the infant stripped of its clothing and found a large area of erysipelas around a vaccination wound that was supposed to have been entirely healed.

POSTURE IN THE TREATMENT OF DISEASE.*

By C. M. COOPER, M. B., Ch. B., M. R. C. S., L. R. C. P.

THE influence of disease upon attitude and position in obedience to the principles enunciated particularly by Hilton has been studied to some extent; though even in this there is still much that could be added to our knowledge if to the improved armamentarium of our day could be added the discerning bedside acumen of the older clinicians. How instructive it is to note nature's endeavor to immobilize an inflamed or painful structure consisting as it does of two elements—

1. An effort independent of conscious volition as e.g., the reflex contraction of muscles in the vicinity of painful joints.

2. A conscious volitional effort as e.g., the chin-on-hand attitude adopted by one suffering from disease of the upper cervical vertebræ. The quicker our patients' reaction time the sooner would we naturally expect them to discover these relieving volitional attitudes; attitudes which we physicians, imitating that wise teacher, Nature, would adopt in treating other patients afflicted with a like disease. Moreover, when the effort involves a process of reasoning we would expect the more intellectual of our patients to adopt attitudes and positions of relief which their less intellectually favored brethren would be unable to devise and such we undoubtedly to some extent find; but we must recollect that the vast majority of our patients know nothing of either anatomy or physiology and consequently cannot be expected to deduce and assume many of these volitional positions and we must further remember that the subject is complicated, inasmuch as the active assumption and maintenance of any position involves muscular efforts which in their turn may be painful and which certainly cause changes in blood-pressure and frequency of heart-beat, which under some circumstances would be inimical to the general welfare of the patient. Hence, we must not expect too much from our patients, but must ourselves brood over the effects of active and passive postures if we desire to intelligently use the same. In the literature at my disposal I have been able to find only desultory reference to position in the treatment of disease, if we except from our discussion the treatment of injuries to bones, joints, muscles, and ligaments—hence the incompleteness of this paper must be apologized for, and as the contemplation of active postures meets with the objections previously outlined it is with passive attitudes that I expressly wish to deal.

Temporary ischemia and congestion of otherwise healthy cerebo-spinal areas seem to play quite a little part in the production of functional symptoms and moreover many evanescent symptoms occurring during the course of organic nerve diseases are undoubtedly due to temporary circulatory changes. Most often these vaso-motor changes are apparently localized to definitely small areas, yet on the other hand there are states e.g., syncope and concussion in which the whole brain appears to be imperfectly supplied with blood, and others—the so-called cerebral congestions—in which the opposite state exists. It is the common custom to find patients suffering from

* Read before the Academy of Medicine, San Francisco.

these diverse conditions lying in bed, no attention being paid to position, we forgetting that just as it is possible to modify the circulation of the leg by passively elevating the foot, so by elevating the foot of the bed, by levelling the bed or by elevating its head we can bring about changes in position of the patient which modify considerably the physical conditions of the cerebro-spinal circulation.

In the inverted position (i. e., with the foot of the bed raised) we cause the posterior fossa of the skull to become the lowermost part of the cerebro-spinal system: moreover the venous return through the jugular vein has to travel uphill. The thoraic suction power is at a disadvantage and the arterial flow is aided, and hence in cases of syncope from fright the inverted posture has become the recognized means of quickly restoring the cranial circulation and with it the lost consciousness. We would assume that in similar, even if more lasting conditions of the cerebral circulation, e.g., concussion, such a foot-elevated position of the bed should be employed, in conjunction, of course, with other curative means, similarly in the anemic sleeplessness of aortic regurgitation and in some functional sleepless states the same position seems logically indicated, and indeed has apparently been of much service to the writer in the treatment of these troubles.

On the other hand, when the head of the bed is elevated a different condition of things exists. Then the lower spinal arachnoid cavity becomes the lowest part of the cerebral spinal fluid system, the venous return from the brain is aided by gravity and the thoraic aspirating power is at an advantage; and consequently in congestive headaches, in the earlier stages of acute cerebral inflammations, and in the sleeplessness the result of hyperemic conditions, such a position seems logical and will be found of much aid. I have wondered how much the lying down position has to do with the frequency of nocturnal syphilitic headaches; we know that the patient with his intense syphilitic headaches sits up in bed and leans somewhat forward with his head in his hands, sitting up, I imagine, to aid the venous return through the jugulars; leaning forward, I take it, to bring his center of gravity into such a position that he can occupy this attitude with the least expenditure of muscular force, thus avoiding the accompanying rise of blood pressure; and it seems that it would be wise to elevate the head of his bed and thus keep him passively in a somewhat similar position to that which he actively assumes. Again given an acute spinal meningitis it is a question how much the spread of such a condition could be aided or retarded by position, but it would certainly appear to be a judicial proceeding to elevate the head of the bed and thus have gravity opposing rather than favoring the involvement of the cerebral meninges.

In the treatment of spinal hemorrhage, Gowers has drawn attention to the dependent congested condition of the cord, with its tending to cause further mischief when the patient habitually lies on his back. I would go further and suggest that here again the elevated position of the head or of the foot of the bed is demanded according to the segmental position of the primary hemorrhage. Thus when the hemorrhage occurs in the lower cervical segment we would elevate the head of the bed, inasmuch as a slight spread upward to the phrenic area is an extremely serious matter, whereas the involvement of a few segments lower down is far less important. On the other hand, when the lower dorsal segments are involved it is the lumbar enlargement that experience bids us protect, and consequently we would elevate the foot of the bed.

DISEASES OF THE THORAIC ORGANS.

Go home, go to bed and stay on the flat of your back is the terse command given to patients suffering not only from acute cardiac affections but to those suffering from broken compensatory conditions and yet as we watch the gradual decline of most of our fatal heart cases we find that the worse they get the more of a sitting up posture do they assume, and I have seen many breathe their last sitting up with body slightly forward as though they would pursue the fleeting breath. As previously stated the factors which probably conduce to a greater comfort in that position are:

1. The increased aspirating power of the thorax and probably of the heart itself.

2. The easier flow through the jugular veins, thus bringing about some relief of the venously congested respiratory, cardiac and vaso-motor medullary centers.

3. The reservoir action of the liver is better brought into play.

One question that naturally arises is: Is there any clinical objective sign apart from the patient's subjective symptoms of relief that speaks of the value of this posture? I believe there is. The great principle in the treatment of all failing muscles is to give them rest. Unfortunately the heart can only be rested comparatively and that only during the diastole and diastolic pause, and hence the slower the heart beat the more rest are we giving the cardiac muscle. It seems to me that the heart rate should be one of the main criterions as regards the most suitable position in which we should treat these individuals and I have found that in many cases not only is the patient more comfortable, not only is his or her dyspnea less, but the pulse rate actually slows, thus proving the virtues of such a position, a posture which I believe should not be constituted by propping up of the patient with pillows, leading to a constant slipping down and a constant disturbing exertion to prevent such occurring, but in ordering the use of a bed built on the lines of the Allison table, in which the necessary changes of position could be brought about without moving the patient, and in which the latter absolutely passive can be made to occupy and retain any desired posture. The same principles apply in the prevention and treatment of nocturnal attacks of cardiac asthma and the venously congested sore throats that some patients awake with, and which some of them learn to relieve by making use of a second head pillow.

How characteristic is the position of a patient with a thoraic aneurism as he sits with rounded shoulders and body bent forward, his head flexed as though he would push away from his trachea the pressure of the aneurismal sac. I remember such a patient who spent the nights of the last month of his life in comparative comfort sleeping on his abdomen, and since that I have found that such a position at night apparently relieves the tracheal symptoms in these cases and enables them to get a few hours of sleep, though it is sometimes necessary to put a pillow beneath the patient below the site of the aneurism so as to prevent the counteracting pressure of the bed.

DISEASES OF THE LUNG.

Acute pleurisy, pneumonia and pluro-pneumonia as we know, most frequently involve the bases of the lungs, and the pleural effusion first accumulates at the base. Does it not seem rational that in the treatment of such a condition we should choose a posture for the patient in which gravity would tend to prevent the flow upward of these effusions, containing as they do the causal germs which may auto-infect the pleura at a higher level? To some extent the same idea holds good in the treatment of pneumonia, and moreover in both diseases I believe that the action of the other lung and often the action of the heart would be favored by such a passive semi-erect position of the trunk.

I have said nothing about blood pressure findings under these conditions for the following reasons: One, that as in my opinion the peripheral circulation plays a much greater part, both directly and indirectly, in the maintenance of a definite blood pressure than is ascribed to it, any argument based upon blood

pressure readings is apt to be fallacious and incorrect; secondly, that the instruments at my disposal (Riva, Rocci and Staunton) do not satisfactorily show the diastolic blood pressure, and I believe the consideration of the systolic pressure alone to be of much less value than of the two combined.

DISEASES OF THE ABDOMEN.

I will not refer to the Fowler and Morris positions advocated in the treatment of acute peritonitis, to the Trendelenburg position or to the various postures employed in the diagnosis and treatment of gyneco logical diseases, for an account of such can readily be found in the text-books and journals. but will at once pass to what I may term the neglected postures

In the erect position, what may be called the pelvis of the gall-bladder lies at a slightly higher level than the fundus. When recumbent in the dorsal position the condition of things is reversed and hence maybe the nocturnal frequency of gall-stone colic. I believe that I have cut short attacks of gall-stone colic by having the patient rapidly assume a knee-chest pos ture, thus causing gravity to favor the falling back of the stone from the pelvis of the gall-bladder into the fundus, for recently on two occasions I have seen the assumption of this attitude coincide with a very speedy relief of what I took to be gall-stone colic. Similarly at the inset of right-sided renal colic I would suggest the patient lying on his right side with the foot of the bed elevated, thus endeavoring to bring about a like result. In left renal colic the inverted left lateral position must of course be employed.

The Oschner treatment of some varieties of appendicitis has apparently come to stay. In employing that method to localize the inflammation or the resultant abscess, does it not seem rational to try and localize it between a comparatively fixed large intestine and the immoveable body wall? If so, we would advocate the assumption of the right lateral position in such cases, flexing the knee passively at the same time to relax the right iliopsoas muscle. Such a procedure would seem to cause the least intestinal involvement and thus to limit the diffusion of the causal agents and the inflammatory products.

DILATATION OF THE STOMACH.

As we well know, the regions of the cardiac and pyloric orifices are the most fixed areas of the stomach. The muscular walls of a dilated stomach have lost their physiological contractility, and in the majority the lower border has sagged so that in this inactive organ there is a portion of the cavity lying below the level of the pyloric orifice in which the contents can accumulate and decompose. What special role can we expect any particular medicine or any special diet to play in the speedy relief of this physical condition? True, the stomach pump is often advantageously employed in such cases, but many patients loathe its use; moreover, to properly treat these patients the stomach should be emptied previous to each meal and such frequent passing of the pump is impracticable and indeed objectionable, yet the majority of cases of simple dilatation we can greatly relieve by the employment of the right lateral inverted posture for a quarter of an hour previous to each meal (Tinct nux vomica m x. Aqua ℥ viii being then drunk), this position tending to empty the sagged recesses. The same principles apply to the after treatment of our cases of gastro-enterostomy, where it behooves us to see that the post-operative posture of the patient is such that the stomach contents through gravity can enter the intestine and not have to depend upon a non-existant stomach contractility. If we do this, much of the troublesome post-operative vomiting and distress will not occur.

It is only by personal clinical observations that one can satisfy himself of the value of the employment of the general principles here enunciated, but it is my sincere belief that they are altogether too much neglected, and that by their use I have been able to allay much distress and still not a little pain.

THE DANGERS OF PROPRIETARY-REMEDY PRESCRIBING.*

By WALTER E. BATES, M. D., Davisville.

IT IS well enough in these days of hustle and hurry and time and labor-saving devices, to call a halt and take a survey every once in a while, ere we are thrown into outer darkness and possibly destruction by unforeseen dangers.

During the last few years I have had glimpses of what seems to me to be a danger that threatens to overwhelm our profession and I ask you, members of the Society, to view with me this monster just peering over the horizon of the medical world and see if you recognize the dangers as they appear to me.

With our monstrous locomotives, our telephones, our automobiles, our telegraphs, our stenographers and typewriters, etc., etc., all vieing with one another to save time, it is no wonder that in the busy life of the physician innovations should be made to lighten the labor of those following that noble profession. It is not to be wondered at, then, that the manufacturing chemist should come to the practitioner with his proprietary remedies, pretty to look upon, pleasant to taste, and done up in neatest of packages, for the manufacturer is a man of keen business instincts and ideas. He knows that the qualitative formula given, for his wonderful nervine, or tonic, or what not, is one that will appeal to most physicians, will save the busy man from writing a long prescription and furnish him with a palatable combination, yet so arranged that there will be much money in it for the hustling chemist. These chemists we find, often combine and form large manufacturing concerns and with a printing press attachment to their laboratory, not only turn out their own labels setting forth the drugs in their proprietary remedy but they print circulars, pamphlets and even periodicals, narrating in glowing terms the virtues of their own peculiarly made and process patented proprietary remedy. This "literature" is, as a rule, addressed to physicians, and so gotten up, appeals to them strongly.

In all this there is one feature that is just a little jarring to the discerning physician. He notes that the "literature" is very fulsome as to the names of the different component drugs and the wonderful virtues of each, but the quantity of each is omitted. It may be in homeopathic dilution or it may constitute the greater part of the remedy, cheapness often governing its quantity.

But, gentlemen, these proprietary remedies are increasing in numbers and must be increasing in use. Let us see to what it is going to lead. I will first ask, is it dignified to have a chemist arrange a formula to be given to every case of a given disease? Is there anything scientific in ordering a patient a proprietary remedy, the dose of each drug contained therein being unknown to you, you simply taking the word of its manufacturer, who is possibly two or three thousand miles away, that it is good for such a case? Is it just and honorable to the patient for you to prescribe such a mixture? Are you giving him your best thought for his money or are you borrowing the say-so of the pecuniarily interested manufacturer? I believe, gentlemen, you will say no. Emphatically, no.

The dignity of the medical profession is being lowered by such practice. Its members are becoming mere machines or automatons by ordering from the druggist's shelf a mixture that is claimed to be good for a certain disease, in every case of that disease which presents itself, regardless of the fact that every case is a case of its own and has its special features and requires its special remedies. Such methods are wholly unscientific and stifle clinical and individual research.

No wonder the druggist is doing more and more counter prescribing. His physicians are prescribing a great deal of anti-pain for neuralgias, and when a

*Read before the Yolo County Medical Society

customer comes in and complains that he has a pain in his temple, the druggist turns to his shelf and puts him up a few anti-pain tablets. So simple! The prominent Dr. Blank uses them.

Then what of the efficacy of these compounds, the doses of which are unknown? Is it possible to get as good results from a mixture of drugs, the dose of each ingredient being unknown, as it would be where the doses are known? Then where are we drifting? There is not a day passes but what I receive a large number of cards, circulars, pamphlets and journals setting forth the virtues, beauty, etc., of some proprietary remedy, old or new. Many free samples are sent and later comes a request for a report as to results. These reports are compiled, printed and sent broadcast to all physicians in the country. Generally speaking the deductions are made upon a short use and superficial examination as to their merits, but to read the headlines and general trend of the advertising "literature" one would think that the much-vaunted remedy would be a specific in that particular disease; a trial of it usually leaves one a sadder but a wiser man.

And so I wish here to enter a protest against the use of such mixtures. I believe their use is degrading to the medical profession. I believe the man who uses them to be less of a scientist, less of a physician and less of a man for using them. I am prepared to go further. I am prepared to state that **the medical journal that advertises such remedies and thereby upholds and advances their use is a detriment to the profession and should not be supported by members of this Society or of the medical profession in general.**

This is a broad subject and I have but touched upon a few of the influences for evil to our profession but I hope I have given you some food for thought and I wonder if you see this "infant industry," but growing monster, as I see it. I call it a "monster" for I can see it is hydra-headed and among them I see one head I might term "unknown quantity," another "unknown quality," another "alcoholism," another "unscientific," another "machine" (you press the button and down drops a medicine for cystilitis, another button and you get one for fever, etc., etc., *ad nauseam*).

Now understand me, I am not advocating the abolishment of *all* proprietary remedies, whether they are good or not. That is going *too far the other way*, for the physician who refuses to prescribe a well established remedy merely because it is a proprietary remedy is not doing the best possible for his patient or himself. On the other hand the prescribing and using of preparations, the composition of which are *unknown*, is to be condemned, as it is unscientific, unethical and bound to react injuriously upon the physician and public alike.

I therefore repeat the question asked in the opening of this paper. Do you see with me peering over the horizon of the medical world a monster, that if allowed to rise is likely to utterly destroy the medical profession?

Inferior Ethmoidal Turbinate Bone.

The *Annals of Otology, Rhinology and Laryngology* for September contains a very fine article on this subject illustrated with 47 half-tones that leave nothing to be desired. Section of the portion of the skull involved has been made in a number of different planes, the specimens photographed and beautiful half-tones made from these photographs. It should receive the attention of everyone interested in the surgery of this section.

Dr. W. L. Teaby of Monterey was married to Elizabeth Godfrey Heintz on December 1, 1904. Dr. Teaby has taken up the duties of house physician of Hotel Del Monte, a position which he is thoroughly qualified to fill.

EPINEPHRIN; ESPECIALLY IN ASTHMA.*

By ROBERT LEEPER DOIG, M. D., San Diego.

WHETHER we are willing to admit, with Sajous, that the adrenals control all oxidation processes; that they are essential to muscular contraction; that the adrenal system, consisting of the adrenals, the anterior pituitary body and the thyroid gland, contains the most important organs of the body—whether we are willing to admit all this or not, none of us who has had any experience with epinephrin can doubt that it is a powerful agent. That by its application to the turgescent tissues, during an acute rhinitis; the swelling is promptly, if temporarily relieved; that used in conjunction with cocain on the mucous membrane of the nose, a bloodless as well as a painless superficial operation can be performed; that by hypodermic use the same thing can be accomplished in deeper tissues, are facts with which we are all familiar.

An extract from an organ, the counterpart of which exists in every human being, does all this before our eyes (we do not even know that this preparation represents all the active principles of the secretion of the organ); yet in the study of cases, the average physician no more considers the existence and possible bearing of the adrenals than he considers the existence of the phalanges of the little toe. Even in postmortems, when the disease has puzzled us, but little attention is paid to the condition of the adrenal glands.

My experience in the use of epinephrin has been too limited to be of use scientifically, but it has been sufficient to convince me that here we have a remedy powerful for good, and possibly for ill, and that the function of a gland that contains or produces such a substance cannot but be important. My only hope is to stimulate an interest in the study of the effects of the laboratory products of these glands and of the relation of the glands themselves to physiological and pathological phenomena.

During anesthesia in surgical operations, the hypodermic use of epinephrin increases the blood pressure, increases the absorption of oxygen by the hemoglobin molecules, prevents the lowering of temperature during ether anesthesia and possibly thereby the tendency to pneumonia. I believe it also tones up the heart muscle.

It is more particularly to its action during the paroxysms of asthma that I wish to call your attention.

Case 1—Female, single, age 25; well developed, general health good; bowels regular; menstruation regular; family history indifferent; occupation milliner; residence Michigan. First attack of asthma at the age of four years, following exposure. Gradual development of asthma in winter and hay fever in summer. Of late years frequent attacks of asthma, when she would often not be able to lie down for three weeks. During attacks she suffered severely with pain in the region of the sixth left dorsal nerve.

First saw her on March 21, 1904. Moderate attack. Treated with usual remedies with indifferent success. Gradual abatement in about four days. April 1st came to my residence at noon. Dyspnea extreme, cyanosis marked, intercostal pain very severe. Found no morphin in my hypodermic case. Had used epinephrin in surgical case during the morning and had bottle with me. I thought the general effect would be good, and if the local application would relieve an edemetous membrane, the hypodermic use of it would also. Gave her twelve drops undiluted of the 1 to 1000 solution. In less than two minutes a relieved expression came into the face and she remarked: "I never had morphin relieve me so quickly." The relief was certainly quick and complete. There was a moderate return of dyspnea that night and the next day. The same dosage relieved her each time, and that was the end of the attack. Eight to ten minutes after each dose a general tremor developed, which passed off in ten to fifteen minutes and left a feeling of general weakness. She was not cold and it seemed much like fibrillary tremor of fear or excitement.

The remark that each of the succeeding attacks was relieved by one dose, is not quite true. Thinking possibly to overcome this tremor gr. 1 to 150 of atropin sulph. was combined with the third dose. Apparently there was complete inhibition of the effect of the epine-

*Read before the San Diego County Medical Society.

phrin. Gave another dose of epinephrin alone, in about twenty minutes, with complete relief of dyspnea. The tremor followed but was, I think, not so severe. This symptom has been constant with this patient and also with the second. In the second case it did not seem so severe but was more prolonged. An hour after one treatment he told me that he wanted to write a check but did not, because he was sure that, at the bank, they would think he was drunk.

Sajous gives this, among others, as one of the symptoms of adrenal over-activity, and possibly in these cases it indicated an unnecessarily large dose. Hoping possibly to ward off future attacks, gave patient No. 1 suprarenal extract in 5 gr. capsules, one three times a day, but she was unable to take one a day on account of disturbance of the stomach. Ten days later was called in the night. Usual symptoms. Hypodermic injection of 1 to 1000 solution, ten minims. Relief in two and one-half minutes. Patient was now going to the country, so I gave her a bottle of epinephrin solution to be taken during attacks, twenty drops every one-half hour. She reported "no effect whatever."

When free from symptoms, I think in May, I had Dr. Fred Baker examine her. He demonstrated that pressure high up on the left lateral band would start asthamatic breathing. Advised systematic application of 20 per cent chromic acid solution. Owing to patient being in the country, I was never able to carry out this suggestion. She came in two or three times, during May and June, suffering from attacks which were invariably relieved by epinephrin (hypodermically). In the meantime, she had developed a fistula in ano. Her people were not willing to have an operation here, so she returned to Michigan. I wrote her physician of my experience with her and particularly urged treatment of lateral band. Received a letter from her recently, saying that at the same time she was operated upon for fistula, the galvano cautery was used on her throat. Was feeling fine; free from hay fever, etc. But of course it is too soon to judge of results.

Case 2—Male, age 53; druggist. First noticed symptoms resembling hay fever at about 38 years of age. Would develop after handling morphia and scale pepsin. Was much run down at the time. After a few months, and an outing, he recovered and was not bothered for some years. Symptoms returned about seven years ago and gradually became more asthmatic in character. Various things in the prescription counter would bring on an attack. Once had an attack while at Lake Tahoe from taking a mixture for diarrhea, containing a small amount of laudanum. Gave up business two years ago. When I have seen him there has seemed to be but little spasm of the bronchi, but more of a general edema of the bronchial mucous memberane. Have used epinephrin four times. Relief is prompt and lasting, but not quite so rapid as in first case.

The injections are less painful when the solution epinephrin is diluted with equal parts of normal salt solution. The aching and soreness following are perhaps more lasting than after morphin injections.

It is only fair to say that P. D. & Co., in a brochure on the subject, note that gangrene and subsequent sloughing have followed the hypodermic use of solutions even much more dilute than 1 to 2000. Before seeing this (and since), I have frequently used the 1 to 1000 solution in fifteen minim doses, and have seen no bad results. To watch the local effect, I took in my own arm, a few days ago, ten drops each of epinephrin and normal salt solution.

The following were notes made: 9:57 A. M., injection over insertion of deltoid. Not painful. 9:58½ A. M., blanched skin size of a nickel; cutis ansera very marked. 10 A. M., blanched spot size of half dollar, surrounded by pink aureola. Tendency to fibrillary tremor; decided ache; greater fullness of pulse, no effect on rate. 10:10 A. M., whitened area size of a dollar; aureola more marked. Ache extends in course of ulnar nerve; noticeable down to little finger. Slight ache and some soreness most of the day. Nothing to be seen at bedtime.

My belief is that where there has been sloughing, the epinephrin has been injected into the skin itself, and that when put into looser tissue no such results will follow. When I first used epinephrin for asthma, I was not aware that its use, hypodermically, for this disease had been reported. I have since noticed a series of five cases reported by Drs. Bullowe and Kaplan of N. Y., antedating mine, and there may have been others. Their report was favorable in each case.

REPORT OF A CASE OF PERNICIOUS ANEMIA.*

By B. F. STEVENS, M. D., Associate Attending Physician Sisters' Hospital, of El Paso, Tex.

THE following case is of interest, because of its resemblance to uncinariasis, which I at first thought it was:

Mr. X, age 55. Family history unobtainable. Previous history negative. His occupation is that of superintendent of mines, which necessitates him visiting various small mines and camps in Mexico, where the food is poor and the drinking water is obtained from ditches and stagnant pools. He has always been healthy and robust, until his present illness began, which was in March, 1903. At that time he developed a persistent diarrhea, which lasted two months. A distinct palor developed at the same time, which still persists. He also complained of a general weakness and lassitude. He has occasional fainting spells. The appetite also is fickle.

Status prasens (January 1, 1904).—Patient fairly well nourished, of a waxy, anemic appearance, no color in lips or mucous membranes. Abdomen rather prominent, but soft and easily palpable. Eyes negative. Lungs negative. Heart has a sytolic murmur probably of hemic origin. Abdomen prominent, no tumor palpable. Rectum negative, no hemorrhoids. Urine, twenty-four hour specimen, 1400 c. c., S. G. 1018; no albumen or sugar; few hyaline casts.

His temperature is irregular, varying from normal to 100 F. Uncinariasis or "miners' anemia" was first thought of, for several reasons, on account of his occupation and mode of life, his waxy, anemic appearance, prominent abdomen; also because he always felt better after free purgation. Therefore, I first examined his stools, after giving him four grammes of thymol in capsules, in two doses, two hours apart on an empty stomach. This was followed in two hours by 45 c. c. of castor oil, given in beer foam to disguise the taste. The stools were then saved and examined as follows: 10 c. c. of feces were well shaken with 90 c. c. of water, and then allowed to settle for two hours. The sediment was then examined for eggs repeatedly, but none were found. Worms also were absent.

A blood examination was next made, which was as follows: Reds, 1,200,000; hemaglobin, 30%; color index, 1.2; marked poikilocytosis; few nucleated reds (gigantoblasts). This of course settled the diagnosis. The patient was put on an intestinal antiseptic with increasing doses of arsenic. He then returned to his home in Mexico. His family physician wrote (April, 1904) that the attacks of dizziness and fainting continued to grow worse, so that it was impossible for him to even sit up in bed. His mind also was no longer clear. His death occurred in the early part of May. No post mortem was obtainable.

Stiles in a report on the prevalence and geographical distribution of hook worm disease, shows the wide distribution, especially through the South, in the sandy regions, in people who are careless in their habits and mode of living. The lesions produced by the hook worm occur in the small intestine a few meters from the stomach. The anemia is due to the hemorrhage, through the wounds made by the parasite; also to the blood which it sucks. There is also a toxin developed by the worm itself. The anemia is more or less severe, according to the number of worms in the intestine and the length of their existence there. The longest period of time which the disease has existed without re-infection, of which Stiles has any accurate record, is 6 years and 7 months. The disease has existed for fifteen years in certain subjects, but they were living under poor hygenic conditions, so that they were probably re-infected. The eggs of the female do not develop in the human intestine, but require an intermediary host, so that unless the patient is reinfected, the worms must eventually die out. The intermediary host is probably the earth. Ordinary earth worms are thought by some to act as host. The eggs are oval in shape, .05 m.m. long, and have a thin transparent shell. The male worm is from 6 to 10 m.m. long, the female being a little larger, from 5 to 18.

The symptoms are more or less severe, according to the length of the time the disease has existed, and the number of worms present. The patient complains of gastro-intestinal disturbances, colicky pains, dyspnea and later on, edema, with the general appearance of a more or less profound anemia. The repeated examination (microscopic) of the stools, for the worms or eggs, especially after the adminis-

*Read before the El Paso County (Texas) Medical Society. Blood specimens were also shown.

tration of thymol and epsom salts, is the only way to clear up the diagnosis. Where an anemia exists for any length of time, in a sandy or even a malarial country, especially in people of careless habits, the stools should be carefully examined for the anchylostomata, or their eggs.

A blood examination is the only reliable means of making a positive diagnosis in early cases of pernicious anemia. This patient had passed through the hands of several competent men in the East, who had made a diagnosis of a simple anemia, and put the patient on an iron preparation, with a favorable prognosis, though without any improvement in the patient. A low red count, the presence of large nucleated reds with a relative increase in the hemaglobin, is almost diagnostic of pernicious anemia —where no intestinal parasites are present. Poikilocytosis may be found in a simple anemia. In chlorosis the percentage of hemaglobin is either diminished or stationary.

In preparing blood smears for microscopic examination, it is necessary to have cover glasses, which have been cleaned with alcohol and an absolutely *clean* old linen cloth or handkerchief. The fingers should not touch the cover slips after they are once cleaned. The blood will not spread evenly on a dirty slip. Then, too, a dirty cover slip may cause some post mortem changes in the blood. The end of the little finger or lobe of the ear is then cleaned, and a deep stab made with a cutting needle, to insure plenty of blood. The first few drops of blood are wiped away, then touch the next drop lightly with the cover slip, so as to get a very small drop of blood. Then place another cover slip over the first, and slide them apart on a horizontal plane, and allow them to dry in the air, then fix by heat at 110° c. for two minutes, or in equal parts of ether and absolute alcohol for an hour. Then stain with Erlich's tripple stain for about seven minutes, or Simons' Eosinate of Methybene. The specimen may then be mounted in Canada balsam and examined under an oil immersion lens.

The prognosis in pernicious anemia is bad. Some cases have apparently recovered under arsenic. These patients have relapses, however, so a guarded prognosis should be given.

Condemnation of the Division of Fees.

At a recent meeting of the Council of the Chicago Medical Society, Dr. Arthur Dean Bevan offered the following resolution which is to be voted on at a subsequent meeting and then, if adopted, to be incorporated as an amendment to the Constitution: "Any member who is guilty of giving or receiving a commission, or of entering into any arrangement for the division of a fee for professional services, which arrangement is not known and fully understood by the patient or party by whom such fee is paid, shall be guilty of unprofessional conduct."—*Medical Record.*

Nurses' Journal.

The California State Nurses' Association has undertaken the regular quarterly publication of a journal with the title "*The Nurses' Journal of the Pacific Coast*," and the first number has recently been received. It is certainly a most creditable production. It is a thoroughly businesslike publication, properly gotten up, well printed on good paper, and in every point of mechanical construction, most praiseworthy. The reading matter contained is also excellent, and the officers of the Association are to be highly complimented on their work. This number contains the following papers: History of the Association; St. Dorothy's Rest; A Talk with Nurses in Private Practice; An Australian Nurse in America; State Registration; Visiting Nurses in San Francisco; Emergency Hospital in a Large Department Store; Scientific Study for Nurses; The Pioneer Nurse. It also contains a list of the members of the Association.

A Manufacturer's Troubles.

Among the alleged infringers upon whom Parke, Davis & Co. have served notices for the purpose of protecting their patent rights in Adrenalin are Armour & Co., manufacturers of Suprarenalin; Eli Lilly & Co., makers of Sanguestin; H. K. Mulford & Co., manufacturers of Adrin; Frederick Stearns & Co., manufacturers of Adnephrin; Henry K. Wampole & Co., manufacturers of Hemostatin, and John Wyeth & Bro., manufacturers of Catrenalin. In this connection the Tribunal of Commerce, Brussels, Belgium, has rendered a decision in favor of the defendants in the case of Comar & Cie vs. Parke, Davis & Co., of Detroit. The suit was brought by the plaintiffs to obtain a judgment, stating that the name "Adrenalin" was not the lawful copyright of the defendants, Parke, Davis & Co. The most important of the claims set up by the plaintiffs were that the word "Adrenalin" was a descriptive word; that the inventors had allowed their rights to lapse, and that the plaintiffs had deposited the word "Adrenalin" as a trade mark at the International Bureau at Berne before the defendants. The court held, however, that none of these contentions was valid and gave judgment in favor of Parke, Davis & Co., the plaintiffs, Comar & Cie paying all the costs.—*Am. Med. Journalist.*

California Medical and Surgical Reporter.

A new medical journal has been born in the southland and to it has been given the name above. Los Angeles certainly must be a very live and lively city, for this is the fourth medical journal to be issued from the metropolis of the south. Dr. Charles F. Wagar is the editor in chief and he seems to have secured for associates or assistants some 39 physicians of Southern California. We would not be considered as small-minded or hypercritical, but, on the face of it, it is a trifle difficult to see just wherein is the paramount necessity for another medical journal, either here or anywhere else, for the matter of that. The principal trouble with the host of privately owned medical journals is that they must make money to live, and that the money must come from advertisers. There are no rules and no scruples to hold them back, and so the chionias and the sengs, the antikamnias and the antiphlogistines, the sanmettos and the tongalines, are enabled to keep on presenting themselves to the gullible physician, who is naturally a credulous, guileless and trusting man and believes too much that is printed and paid for.

The Secret Disclosed.

It is announced that "Health Hints for the Household," that now almost historic document, "issued by the Board of Health of San Francisco for the purpose of furnishing medical information, briefly, in regard to the care in the families of contagious, communicable and infectious diseases," was written by no less a person than Dr. D. F. Ragan. In a way, this is surprising, for if memory serves, Dr. Ragan was once connected—nay, even intimately connected, with the School Board of San Francisco, and consequently one would hardly look for such grotesque and anomalous forms of the poor English language, in a document written by a former school official.

Shall I Operate?

Billroth, in writing to a Russian surgeon regarding the fatal malady of Pirogoff, a palatal neoplasm, refused to operate or to advise an operation, saying:

"I am not that bold operator whom you knew years ago in Zürich. Before deciding on the necessity for an operation I always propose to myself this question: 'Would you permit such an operation as you intend performing on your patient to be done on yourself?' Years and experience bring in their train a certain degree of hesitancy (Zurückhaltung)."—Dr. C. A. Powers, Address, A. M. A.

COMMUNICATIONS.

THE "INTERNIST" FOOLISHNESS.

To the Editor of the STATE JOURNAL:—I beg to introduce myself to you as a lay woman and to crave your kind perusal of this letter in order that you may give me a little advice. I come to you, though you are a stranger, because I am in a quandary and do not know to whom else to go.

My quandary is this: I am not wholly well, nor yet wholly sick and I very naturally applied to my family medical adviser for some relief. He made a very searching examination of me, washed out my stomach and my colon—he said it was a colon—and then blew them up with air. He examined my heart and my lungs and fluoroscoped—so he said—them. He examined my urine and a couple of stools and then told me that he could find nothing wrong, and that he had gone as far as he, an *internist*, could go; but as I had a little eruption on one of my elbows he advised me to see a dermatologist. I followed his advice, saw a dermatologist and he saw my elbow. The eruption he pronounced as of trivial character and of but temporary duration, and that that was as far as he, an *externist*, could go; but I had told him that I had had occasional attacks of nausea in the mornings and so he suggested my seeing an obstetrician. The need for this surprised me—I am a maiden lady—but I really did feel worse than I had at first and I thought I might as well see this gentleman. He examined me, told me I need have no fears, and then said that he, an *adventist*, could go no further; but he had noticed that I had a queer looking ankle and counselled me to see an orthopedic surgeon. This seemed to promise something and so I went and saw an orthopedic surgeon. He looked very carefully at my legs and ankles, tried my muscles with electricity, spoke vaguely of plaster of Paris and plates, and finally said that my trouble was not in his line, and that he, an *extremist*, could be of no service to me. But he offered me some hope, for he said he was sure something was the matter with some one of my organs and told me of a friend of his who could put me right. I saw him, evidently a very learned man, but after several visits and much time and not a little money he reported that, as an *organist*, he could swear that my every organ was as sound as possible. However, he was not wholly satisfied with some of my secretions and wanted to send me to a *secretist* whom he knew well and whom he could recommend. Now I was sure that this meant some more stomach tube use and so I begged off and finally we agreed that I should go and see a general practitioner, who knew it all, a *sophist*, he was called.

Can you now tell me, Mr. Editor, if I should do this? Would you advise me to go on in this quest, or to stop? Perhaps I am not sick after all.

I beg to thank you in advance for your reply.

Very respectfully yours,
AMANDA BOGGS.

Mount Tulare, California, 19th December, 1904.

[Amanda, we know not whether you really exist, and we cannot advise you if you do; but we thank you—deeply, sincerely, profoundly.—ED.]

Changes in Faculty.

The following changes in faculty are announced by the New York School of Clinical Medicine: General Medicine—Professors William Brewster Clark and Henry Lawrence Schively; Associate Professors Thomas W. Acken and Edward L. Kellogg. General Surgery—Professor Simon J. Walsh, and Associate Professor J. Cameron Anderson. Gynecology—Professors Augustin H. Goelet and A. Ernest Gallant. Pædiatrics—Professors Dillion Brown anl Henry Comstock Hazen. Nervous and Mental Diseases—Professors J. Arthur C. Booth and Emmet C. Dent. Gastro-Intestinal Diseases—Professor Robert Coleman Kemp. Ophthalmology and Otology—Professors John L. Adams and Geo. Ash Taylor. Dermatology—Robert J. Devlin. Laryngology and Rhinology—Professor Max J. Schwerd. Orthopedic Surgery—Professor Homer Gibney. Hydrotherapeutics—Professor Alfred W. Gardner. Genito-Urinary Diseases—Professors William K. Otis, Walter Brooks Brouner and John von Glahn. Pathology—Professor E. E. Smith. The facilities of the school have been materially enlarged. JOHN L. ADAMS, M. D., Secretary.

RESULT OF EXAMINATION HELD DECEMBER 6th.

PASSED.

Cooper Med. Coll., Cal. 1904—82 3/9, 84 8/9, 82 1/9, 84, 78 8/9.
Hahnemann Med. Coll. of the Pac., Cal., 1904—82 6/9, 82 1/9, 1903—75 7/9.
University of Cal., 1904—75.
Chicago Homeo. Med. Coll., Ill., 1888—80 4/9.
Coll. of P. & S., Ill., 1895—86 1/9, 1904—76 3/9, 1902—75.
Denver & Gross Coll. of Medicine, 1902—87 7/9.
Howard Med. Coll., Washington, D. C., 1902—83 3/9.
Jefferson Med. Coll., Pa., 1902—78 1/9.
McGill University Med. Dept., Canada, 1904—77 6/9.
Med. Dept. Univ. of Mich., 1903—85 3/9, 75 7/9.
Med. Dept. Univ. of Minnesota, Minn., 1900—85.
Med. Dept. Univ. of Mo., 1904—75.
Northwestern Univ. of Ill., 1904—82 2/9.
Rush Med. Coll., Ill., 1901—87 6/9.
Starling Med. Coll , Columbus, O., 1898—82 1/9.

Passed, 60%.

FAILED.

Coll. of P. & S., Cal., 1904—70 6/9.
Cooper Med. Coll., Cal., 1903—65 4/9.
Bellevue Hosp., Med. Coll., N. Y., 1889—69 7/9, 1877—66 4/9.
Coll. of P. & S., Ill., 1901—71 6/9.
Jefferson Med. Coll., Pa., 1902—68 4/9, 1893—36 4/9.
Med. Dept. Univ. of Mich., 1890—67, 62 3/9.
Marion-Sims Beaumont Coll. of Med., Mo., 1903—66 7/9.
Med. Dept. of Louisville, Ky., 1890—68 5/9.
Med. Coll. of So. Carolina, 1897—70 4/9.
Med. Dept. Univ. of Va., 1891—52 6/9.
Rush Med. Coll., Ill., 1882—69 3/9.
Tuffs Med. School, Boston, Mass., 1902—59 3/9.
Univ. of Berlin, Germany, 1899—64 1/9.
Cooper Med. Coll., Cal., 1904—5 passed; 1903—1 failed.
Hahnemann Med. Coll. of the Pac., Cal , 1904—2 passed; 1903—1 passed; 0 failed.
Univ. of Cal., 1904—1 passed; 0 failed.
Coll. of P. & S., Cal., 1904—0 passed; 1 failed.

Failed, 40%.

[Through an unfortunate error, in compiling the result of the examination, published last month, the dates of graduation were not correctly given. The above list is correct; that published in January should be ignored. ED.]

XVth International Congress of Medicine.

"We received the 4th number of the Official Journal of the *XV International Congress of Medicine* (Lisbon, the 19th-26th April, 1906). It is evident from the examination of this number that the scientific success of the Congress is insured, on account of the name of the physicians that are moved by it and of the quantity of reports engaged up-to-date and designed to printing before the inauguration of the Congress. Really the number of these reports actually on work rise to 188. At the same time many personal communications are announced already. These matters are the principal of the last *Official Journal*, which at another side includes the lists of the national committees, of the delegates and of the inscriptions received. There is a last information very interesting for many physicians—it is that the XIIth section was divided in two sub-sections, one of them including the Laryngo-Rhino-Otology and the other Stomatology." (*Sic*).

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) from the Register information as published. Hereafter each issue of the JOURNAL will contain the changes received from the 15th to the 15th.

Changes of Address.

Anderson, L. Shuttleworth, from 1802 Haight st., San Francisco, to Irvington, Cal.

Barber, David C., from 216 Byrne Bldg. to 253 Broadway, Los Angeles. Hours: 2 to 4 P. M. Bell, David R., from Clearwater to Long Beach; **Bertola Mariana,** from 1312 Mason st. to 1356 Mason st., San Francisco; Bogue, Herbert E., from San Dimas to Whittier, Los Angeles Co., Cal.; **Booth, James, P.,** from 452½ S. Broadway to 421, 429, 431 Mason Bldg., cor. Fourth and Broadway, Los Angeles; **Bradley, Edward R.,** from 416 W. Fourth st. to 207 Braly Bldg., Los Angeles. Hours: 1:30 to 4 P. M. Brown Oscar S., at present in Winslow, Ariz., residence Wildomar, Cal.

Collins, Asa W., from West Point, Calaveras Co., to French Hosp., San Francisco; Crease, Henry G., Eureka, gone East to locate.

Davisson, J. H., from Laughlin Bldg. to 312-314 Douglas Bldg., Los Angeles; **Delmont, Francis,** from 1910 Leavenworth st. to 1129 Union st., San Francisco; **De Puy, Anson A.,** from Golden Gate to Haywards, Alameda Co. Hours: 1 to 3 P. M. **Dunning, F. W.,** from add. unknown to Whittier, Cal.

Edmundson, W. J., from 2330 Larkin st., San Francisco, to El Verano, Sonoma Co., Cal.

Farrow, Edgar J., from 2344 Mission st. to 228 San Jose ave., San Francisco.

Galbraith, A., from add. unknown to Central Bank Bldg., Oakland.

Hadley, Fred H., from Whittier to 611 Hellman Bldg., Los Angeles. Hours: 10 to 12 A. M.; 2 to 5, 7 8 P. M. **Helms, Geo. L.,** from 123 Ellis st. to 1170 Market st., San Francisco; **Hitchcock, W. W.,** from Laughlin Bldg. to 310 Douglas Bldg., Los Angeles; Low, Samuel, from Richmond to Santa Barbara.

McCombs, V. J., from 1622 W. Thirty-Ninth st., Los Angeles, to South San Francisco, San Mateo Co.; **Moore, E. C.,** from add. unknown to 800 Alvarado st., Los Angeles; Mouser, Benjamin T., from 499 Forty-Ninth st. to 1811 Telegraph ave., Oakland. Hours: 12 to 2, 6 to 8 P. M.

Posey, A. C., from add. unknown to Watsonville, Santa Cruz Co., Cal.

Saunders, Bertha A., from 531 Sutter st. to St. Francis Hotel, San Francisco; **Simmons, Haydn M.,** from 231 Post st. to 101 Callaghan Bldg., San Francisco; **Skeel, Donald W.,** from Laughlin Bldg. to 312-314 Douglas Bldg., Los Angeles; Snook, John, from Bakersfield to Berkeley, Cal.; Steen, D. B., from 5438 Central ave. to 1009 E. Fifty-Sixth st., Los Angeles. Hours: 2 to 4, 7 to 8 P. M. **Stivers, C. G.,** from 315 W. Sixteenth st. to 733 Hellman Bldg., Los Angeles.

Takeoka, Minokichi, from 410 O st. to 1214 Fourth st., Sacramento, Cal.

Victors, Ernest A., from 1533 Grand St., Alameda, to Palo Alto, Cal.

Weis, Arthur H., from 606 Sutter st. to 794 Sutter st., San Francisco; **Wilkes, Farrington,** from 1612 Twelfth st. to 1103½ Broadway, Oakland.

New Names.

Beach, Alfred Nelson, Bohemian Club, San Francisco. Bellevue Hosp. Med. Coll., '70. (C) '91.

Cook, Wm. H., Bakersfield. Rush Med. Coll., Ill., '76. (C) '87.

McAulay, Martin, San Mateo. Hahn. Med. Coll. of Pacific, '04. (C) '04. McChesney, Joseph, Quincy, Plumas Co., Cal. Coll. Phys. and Surg., New York, '81. (C) '84.

Reckers, Wm. A., Placerville, El Dorado Co., Cal. Cooper Med. Coll., Cal., '01. (C) '01. Rhea, A. R., (Retired) Long Beach, Los Angeles Co., Cal. Med. Dept. West. Reserve Univ., '80. (C) '84.

Sarle, Willis C., Gridley, Cal. Med. Dept. Univ. New York, '86. (C) '01. Scott, Alfred J., Orange, Cal. Med. Dept. Univ. Mich., '82. (C) '04.

New Members.

Baylis, J. N., San Bernardino Co. Med. Soc.; **Byron, A. E.,** Sonoma Co. Med. Soc.; **Byron, E. H.,** Sonoma Co. Med. Soc.; **Campbell, C. G.,** San Bernardino Co. Med. Soc.; **Carolan, Herbert,** San Francisco Co. Med. Soc.; **Christiansen, H.,** Monterey Co. Med. Soc.; **Clark, W. S.,** San Francisco Co. Med. Soc.; **Cockerill, Bruce T.,** Sonoma Co. Med. Soc.; **Cornwall, Frank,** San Francisco Co. Med. Soc.; **Dunning, F. W.,** Los Angeles Co. Med. Soc.; **Edwards, W. A.,** transferred from San Diego Co. Med. Soc. to Los Angeles Co. Med. Soc.; **Galbraith, A.,** Alameda Co. Med. Soc.; **Jenkins, Jno. E.,** Los Angeles Co. Med. Soc.; **Johnson, Daniel H.,** San Mateo Co. Med. Soc.; **Lonigo, Emil V.,** San Francisco Co. Med. Soc.; **Liverman, J. R.,** San Bernardino Co. Med. Soc.; **McAulay, Martin, McCombs, V. J., McCracken, Chas. L.,** San Mateo Co. Med Soc.; **McKinnon, A. J.,** Sacramento Co. Med. Soc.; **Miller, Guy,** Santa Cruz Co. Med. Soc.; **Mills, J. M.,** Santa Cruz Co. Med. Soc.; **Moore, E. C.,** Los Angeles Co. Med. Soc.; **Posey, A. C.,** Santa Cruz Co. Med. Soc.; **Pounds, T. C.,** San Bernardino Co. Med. Soc.; **Richardson, N. E.,** Monterey Co. Med. Soc.; **Sanborn, C. A.,** San Bernardino Co. Med. Soc.; **Sartori, Henry J.,** San Francisco Co. Med. Soc.; **Seibert, Franklin M.,** San Mateo Co. Med. Soc.; **Stone, Earl A.,** Alameda Co. Med. Soc.; **Todd, C. M.,** Santa Barbara Co. Med. Soc.; **Watts, Herbert Charles,** Contra Costa Co. Med. Soc.

Deaths.

Bessac, Henry B., Oroville.

Crawford, John H., Santa Monica.

Fisher, F., Santa Cruz.

Gill, C. J., Riverside.

McLeod, John G., Newhall; McMahon, Abraham, San Jose.

Phelon, Wm. P., San Francisco.

Add. Unknown.

Alexander, Paul C., add. unknown (letters returned).

GROSS EFFECTS OF RADIUM ON LIVING TISSUES.

When the skin is exposed to radium there first appears an erythema; if the process goes beyond erythema, there develops a livid dermatitis; if it progresses further, vesicles develop upon the surface, the cells that are most affected undergo necrosis, and indolent ulcers are produced. The process may not go beyond an erythema or congestion. If so, the erythema or congestion, first diffuse and later sharply circumscribed, becomes less marked and finally fades out. Scaling of the epidermis occurs, and at last a pigmented area is left to mark the site of the reaction. If the process goes on to the formation of ulcers, the lesions that occur are very indolent. In the burns which M. Becquerel and M. Curie produced on their own persons the ulcers did not heal for about two months, and the duration was longer in the case reported by Hallopeau. All this is, of course, very strikingly like X-ray burns.—Pusey, in *Journal A. M. A.*

Do Not Advertise to the Public.

The JOURNAL was misinformed in regard to Bovinine, and through error stated that it was advertised to the public. The manufacturers advise us that they have in no way appealed to the public in ten years, and we are very glad to have their assurance of this fact and to set the matter straight.

COUNTY SOCIETIES.

Humboldt County.

At a regular meeting of the Humboldt County Medical Society held in Eureka, December 13, 1904, the following resolution was unanimously adopted:

Resolved, That the Humboldt County Medical Society hereby reaffirms and emphasizes its belief in proper vaccination as a protection against small-pox; and that it is further of the decided conviction that inoculation with pure vaccine virus, followed by cleanliness of the wound with good sanitary surroundings, is an entirely innocent and harmless measure.

The Secretary is hereby instructed to furnish a copy of the above resolution to the Secretary of the California State Board of Health, and one to the Secretary of the California State Medical Society.

GEO. N. DRYSDALE, Secretary.

Los Angeles County.

The regular meeting for January 6th was well attended and an unusually interesting program was presented. Two patients were exhibited, one having, probably, primary malignant disease of the mediastinum and the other an anurism of the aorta. Papers by Drs. Norman Bridge and F. M. Pottinger on tuberculosis were then read and discussed at length by the members present. The resolutions passed by the Council and officers of the State Society, in conference, relating to the question of advertising in the *Journal of the A. M. A.* were then read by the secretary and after some little discussion, endorsed with but one dissenting vote.

Napa County.

The Napa County Medical Society met in Napa on December 6, 1904, and general business matters were discussed. Ethical advertising was the especial subject of discussion and all present expressed their views. No definite action was taken and it was, on motion, ordered that the matter be laid on the table.

J. L. ARBOGAST, Secretary.

Sacramento County.

The Sacramento Society for Medical Improvement met in regular session at the office of Dr. S. E. Simmons. The meeting was called to order by the President, Dr. Henderson, and the following members answered roll call: Drs. Baldwin, W. E. Briggs, W. A. Briggs, Cartwright, Cox, Duffey, Hanna, Henderson, James, Krull, Look, McGaren, McKee, Nichols, Parkinson, Ross, G. L. Simmons, S. E. Simmons, Stevenson, Sutliff, Twitchell, J. L. White, Wiord, Wilder, Wright, Wheeler, Hamilton, Voisard and McKinnon.

Miss Doser, Acting President of the California Nurses' Association, was present and asked that the approval of the Sacramento Society be given of a bill concerning graduate nurses and a Board of State Nurses' Examiners, etc. Dr. Nichols moved that a committee be appointed to investigate the matter and report at the next meeting. The motion was carried. The President appointed Dr. Nichols, Dr. Parkinson and Dr. Ross as members of the committee.

The President then announced that it was time to elect someone to read a paper at the next annual meeting. Dr. Stillman of San Francisco was mentioned and was elected. The Secretary was ordered to invite Dr. Stillman to be present and read a paper at the next annual meeting, March 17th.

Dr. Cartwright presented a young man, aged 25, who was suffering from partial atrophy of the muscles of the calf of left leg. He gave no history of injury or infectious diseases. It was thought that there was a lesion somewhere in the lateral or anterior columns of the chord.

Dr. Twitchell presented some "X-ray" plates—one of an aortic aneurism and one of an enlargement of the upper end of the tibia and fibula and lower end of femur.

The paper of the evening was read by Dr. S. E. Simmons on "Placenta Preria." The discussion was opened by Drs. Sutliff and W. A. Briggs. After a general discussion the meeting adjourned.

J. W. JAMES, Secretary.

Orange County.

The Orange County Medical Association held its regular monthly meeting Tuesday evening, January 3, 1905. There was an unusually good attendance.

The Society adopted resolutions favoring restricting advertising matter in the *Journal A. M. A.* to strictly ethical lines. Resolutions favoring a State Sanatorium for the tuberculous poor were also adopted and read as follows:

Whereas, Tuberculosis is the cause of more deaths in California than any other single disease, being responsible for an annual mortality nearly one-half greater than that of whooping cough, measles, scarlet fever, diphtheria, typhoid fever and pneumonia combined, and

Whereas, It is a curable disease, yielding readily in its early stages to efficient treatment, and

Whereas, Experience shows that it can best be treated and favorable results can be obtained in a much greater proportion of cases in Sanatoria than elsewhere, and

Whereas, The poor are unable to take advantage of such treatment without aid; therefore be it

Resolved, That the Orange County Medical Association does most urgently request the Legislature of the State of California to take the necessary steps for the establishment of a State Sanatorium for the treatment of the tuberculous poor.

Dr. Burlew read a very interesting paper on, "Some Experimental Work on Intravenous Injection of Salts with Special Reference to Their Action on the Kidneys," the paper being a report of work done in the Rush Medical College by Dr. Burlew, under the supervision of Prof. Matthews of Rush. The paper showed evidence of a thorough knowledge of the work done along this line.

H. S. GORDON, Secretary.

San Bernardino County.

The San Bernardino County Medical Society met pursuant to By-Laws—the second Wednesday in each month; President Dr. Browning in the chair.

The minutes of last meeting were read and approved. Upon favorable report of the Board of Censors, the following named doctors were unanimously elected to membership in the San Bernardino County Medical Society, viz.:

Drs. Wm. A. Taltavall, C. A. Sanborn, T. C. Pounds, of Redlands; Drs. J. R. Liverman, C. G. Campbell, J. N. Baylis, of San Bernardino.

Chairman Dr. Browning nominated the following named members as a new Board of Censors for the ensuing year, viz.:

Drs. Aldridge, Gibbs, Rowell, Payton, and Freeman. These nominations were duly ratified by the Association.

Dr. W. Thompson offered a resolution to discharge the Committee on State Board of Examiners, which was so ordered.

The committee that was appointed on December 14th to report suitable resolutions to sustain the State Board of Health upon small-pox and tuberculosis, reported the following:

Whereas, Small-pox is one of the most common and also one of the most loathsome and dangerous diseases; and,

Whereas, It has been made to almost disappear from the civilized nations of the globe in its most dangerous and hideous forms, through vaccination; therefore, be it

Resolved, That the San Bernardino County Medical Society hereby affirms its belief that efficient vaccination, performed by an authorized physician and followed by cleanliness on the part of the patient, is a protection against small-pox and an innocent and harmless remedy.

Whereas, Tuberculosis causes a much greater mortality than any other disease in the State of California, being greater than that caused by pneumonia, diphtheria, scarlet fever, measles and whooping cough combined; and

Whereas, Sanatorium treatment has proven most efficient to the afflicted and affords greater protection to those unafflicted; and

Whereas, This form of treatment is denied to the great mass of the poor, among whom this disease is most prevalent, unless they can receive public aid; therefore, be it

Resolved, That the San Bernardino County Medical Society urges the State Legislature to take the necessary steps for the establishment of State Sanatoria for the treatment of tuberculous poor.

Whereas, There is no more important function of government than the care of the health of the people; and

Whereas, The State Board of Health of California, owing to inadequate and inefficient laws, is hindered in the discharge of its duties, and powerless to protect the health of the citizens of the State; therefore, be it

Resolved, That the San Bernardino County Medical Society does most heartily appreciate the efforts of the State Board of Health on behalf of the people, and that it endorses the new bill to be introduced at the present session of the State Legislature whereby its powers will be increased and its efficiency greatly improved, and that we pledge our influence for its support.

These resolutions were signed by the Committee, Dr. C. C. Browning, Dr. W. Thompson and Dr. W. H. Wilmot, and endorsed by the Society.

The report of the Treasurer, Dr. W. Thompson, which was received and filed, showed the Society to be prosperous.

Dr. H. W. Mills was to have read a paper and exhibited surgical cases, but being detained professionally, arrived with his cases too late to exhibit them to the Society.

Dr. Tyler reported a case of streptococcus infection that was discussed by various members of the Society.

Upon motion of Dr. Payton, the Society adjourned until the regular meeting in February.

J. M. HURLEY, Secretary.

San Benito County.

The regular meeting of the San Benito County Medical Society for December was called to order in the office of Dr. Porter with President Tebbetts in the chair. Roll call found Drs. Tebbetts, Porter, Hull, Nash and O'Donnell present. A communication from the State Secretary, in reference to ethical advertising, was read and the same highly endorsed and recommended by the Society. The Secretary was accordingly instructed to communicate with Dr. Marvel, of Atlantic City, expressing the feeling of the Society in this cause. Resolutions adopted by the Santa Barbara County Medical Society referring to its belief in proper vaccination as being a protection against small-pox were read; the same were heartily endorsed by the Society and on motion the Secretary was appointed to draft a similar set of resolutions and forward them to our Senator and Assemblyman, earnestly requesting that they support the same.

* * * * *

The meeting for January was called to order in the office of Dr. Hull by President Tebbetts. On roll call Drs. Tebbetts, Hull, Porter, Nash and O'Donnell were present.

The Committee on Fee Bill, consisting of Drs. Nash, Hull and Porter, reported and the bill as presented was unanimously adopted by the Society. The Secretary was then instructed to procure a sufficient number of copies of the bill, and that copies be sent to the physicians of our surrounding towns and the Secretary of California State Medical Society.

The application of Dr. W. T. Hicks was read and the same referred to the Board of Censors.

The following were elected to office for the ensuing term: President, L. C. Hull; Vice-president, F. O. Nash; Secretary, J. M. O'Donnell; Treasurer, R. W. O'Bannon; Censor, J. H. Tebbetts.

J. M. O'DONNELL, Secretary.

San Francisco County.

Meeting called to order at 8:35 P. M., President Rixford in the chair. The minutes of the previous meeting were read and approved by the Society.

Propositions for Membership: Drs. Frederick Westerberg, Richard Fricke, J. M. Toner, Milton B. Lennon, Rupert Blue, Gustavus Hogue.

Report of Committee on Admissions: Drs. E. V. Lonigo, W. S. Clark, H. A. Carolan, H. J. Sartori, Frank Cornwall, elected to membership.

Dr. Stapler presented a patient with tumor apparently of the liver.

Dr. Herbert Gunn read a paper on "Uncinariasis with Report of Seven Cases and Exhibition of Specimens."

Dr. C. M. Cooper read a paper on "Remarks on Abdominal Aneurysm with Specimens."

Paper to be read by Drs. Ebright and Huntington on typhoid perforation with surgical treatment, postponed until next meeting.

Amendment relating to the increasing of dues adopted. Dues to be $10 per annum and paid semi-annually.

With regard to the new by-law to be known as Article XXII, the matter was referred to a Special Committee of five appointed by the Chair to draw up suitable amendment, the matter to be brought up at the next meeting. The committee appointed was Dr. Brown, Dr. Power, Dr. Evans, Dr. Carpenter and Dr. Cheney.

Motion made that the Secretary be instructed to notify members that this matter will come up for special order of business at 9 o'clock.

A communication was read with regard to a State hospital for tuberculosis. Moved and seconded that the resolution be endorsed by the Society looking to the legislature for the creation of the tuberculosis hospital.

Annual report of the Committee on Admissions read by the Secretary.

Executive Committee read the announcement of the provisional program for the next meeting:

Presentation of a specimen of carcinoma involving all of abdominal organs, Dr. J. H. O'Connor; Pathology of Syphilis, Dr. Ophüls; Clinical Diagnosis of Syphilis of the Nervous System, Dr. Moffitt. .

Dr. Cheney suggested that this Society take the matter in hand of appointing a committee to investigate the eastern manner of getting certified milk. Moved and seconded that a committee of three would be appointed at the next meeting to confer with the eastern authorities.

Dr. Rosenstirn announced that at the next meeting he would propose an amendment that $2.00 be put aside each month for a building fund.

Resignation of Dr. English read and accepted and motion made and seconded that he be given a transfer card.

Dr. Carpenter moved that the retaining fee of $250.00 be paid to the attorney by the Executive Committee. Carried.

The out-going committees moved that a vote of thanks be tended to the out-going President for his services during the past year. Seconded.

Meeting adjourned at 11 o'clock.

San Joaquin County.

The last regular meeting of the San Joaquin County Medical Society was held at the residence of Dr. H. E. Sanderson. Dr. D. F. Ray in the chair.

The following members were selected to serve for the year:

Dr. R. B. Knight, President; Dr. E. A. Arthur, 1st Vice-President; Dr. J. H. McLaughlin (Angels), 2nd Vice-President; Dr. Margaret H. Smyth, Treasurer; Dr. Barton J. Powell, Secretary.

Trustees: Dr. R. F. Clarke, Dr. W. S. Snedigar and Dr. S. E. Latta.

Committees: Dr. A. W. Hoisholt.

Ethics: Dr. H. E. Sanderson, Dr. H. E. Southworth, Dr. R. R. Hammond, Dr. J. P. Hull (Lodi).

Admission: Dr. C. R. Harry, Dr. W. J. Young, Dr. W. M. S. Beede, Dr. W. W. Fitzgerald, Dr. W. E. Gibbons.

Finance: Dr. D. J. Young, Dr. E. A. Arthur, Dr. W. H. Taggart.

Dr. H. E. Sanderson read a valuable paper on "Acute Mania." The Doctor had the complete history of a number of cases collected from his department of the Stockton State Hospital.

Dr. C. R. Harry opened the discussion and was followed by Drs. Hoisholt, J. D. Young, Arthur, Ray and Powell.

The preamble and resolutions adopted by a conference of the Council and Officers of the State Society and relating to ethical advertising was unanimously adopted by the local Society. The Secretary was instructed to notify Dr. Philip Marvel of Atlantic City, a trustee of the A. M. A.

The Society also unanimously endorsed the action of the Santa Barbara County Medical Society, "That proper vaccination is a protection against small-pox."

BARTON J. POWELL, Secretary.

Sonoma County.

The Sonoma County Medical Society meeting was held Thursday evening, Dr. Jesse in the chair.

After the reading of the minutes of the December meeting, Dr. Jesse reviewed the year's work, noteworthy among which was the making of a good fee bill and the discarding of lodge work by our members. The Homeopathic and Eclectic Practitioners have been admitted into the Society, when they did not claim to practice an exclusive system, and our members now number 54. Fourteen new members were added during the year, two were given transportation cards, one withdrew and two died, Dr. H. H. Davis and Dr. W. F. F. Ward.

Dr. Jesse called Dr. Ivancovich, President-elect, who then addressed the meeting, speaking of the plans for the coming year, the object of the Society to amalgamate into one body, all duly and legally qualified practitioners of medicine, that by the generous and liberal spirit prevailing among the various schools of medicine much seems to have been *almost* accomplished; that henceforth we are only physicians and surgeons striving toward one goal—better fraternal feeling and scientific advancement with lasting benefits to humanity.

Of the practitioners in general he said: Every medico should identify himself with the organized body of his profession in the community in which he resides, and the County Medical Society should have the active support of all its members and should be made instrumental for the cultivation of fellowship, for the exchange of medical knowledge, for the upbuilding of ethical standard, and of promoting in general the interest of the entire profession.

It was recommended to stop subscriptions to all unethical journals.

The following program was suggested for the coming year:

1, Medicine; 2, Surgery; 3, Obstetrics; 4, Gynecology; 5, Medico-Legal-Jurisprudence; 6, Therapeutics; 7, Ophthalmology and Otology; 8, Neurology; 9, Pathology; 10, Hygiene; 11, Preventive Medicine; 12, Good of Society.

The Secretary offered the following resolution:

Resolved, That Sec. 11., chapter V of By Laws, be amended to read as follows: The annual dues shall be $5.00 and shall be payable January 1 of each year * * *

The death of Dr. W. F. F. Ward was announced and a committee, consisting of Drs. McLeod, Crump and Bonar, was appointed to draft resolutions of condolence to the bereaved family.

Drs. Crump, Kerr, Smith and McMullin were appointed a committee on Public Health and Legislation. It is expected that this committee will do some good work, as it seems there is a need of it.

The following were elected to membership:

B. T. Cockerill, Bloomfield; E. E. Byron, Forestville; E. H. Byron, Guerneville.

G. W. MALLORY, Secretary.

Santa Cruz County.

The annual meeting of the Santa Cruz County Medical Society was held on the evening of December 5, 1904. The principal item on the program was the annual election of officers, which resulted as follows: President, Dr. W. A. Phillips; vice-president, Dr. J. F. Christal; treasurer, Dr. Nat. Green; secretary, Dr. S. T. Pope; delegate, Dr. S. T. Pope; censor, Dr. A. C. Posey.

San Mateo County.

In response to an invitation sent out by the Secretary of the State Society a number of physicians of San Mateo County met at the Union Hotel in San Mateo on the evening of December 22nd, and effected organization of the San Mateo County Medical Society. The completion of organization and the election of officers for the ensuing year will occur at the meeting in January, which will be held on the evening of the third Monday, (January 23rd) at the Union Hotel. All physicians in the county are urged to join in the organization, and the charter will be held open for charter members for 60 days. While there are not a large number of physicians in this county, still the feeling is excellent and it was with considerable enthusiasm that the gentlemen who gathered at this first meeting entered upon the work of forming the County Medical Society.

Dr. Plymire was elected temporary President and Dr. Seibert temporary Secretary.

* * * * *

The meeting for final organization of the San Mateo County Medical Society was held in the parlor of the Union Hotel, San Mateo, Monday evening, January 16th. The following officers were elected for the ensuing year: President, Harry G. Plymire; Secretary, Frank M. Seibert; Treasurer, Chas. L. McCracken; Delegate for the State Society, V. J. McCombs; Alternate, Harry G. Plymire.

Up to the present time the following physicians in the county are enrolled as charter members: Drs. Alden M. Gardner, Daniel H. Johnson, Alva F. Maine, Chas. L. McCracken, F. M. Seibert, Harry G. Plymire, Martin McAulay, V. J. McCombs.

Dr. A. W. Morton of San Francisco attended the meeting upon invitation, and demonstrated the most recent advances in the operation for umbilical hernia upon a very ingeniously constructed manikin.

There are not a great many physicians in San Mateo County, and they are somewhat scattered, but there is a very decided and encouraging feeling amongst those who have taken part in this movement for organization, and we trust that the newly formed society may have a long and successful life.

Santa Barbara County.

The Santa Barbara County Medical Society held its regular meeting in the parlor of the Arlington Hotel, December 14, 1904, Dr. Charles Anderson, President. The following members answered to roll call, viz.: Drs. Barry, Cunnane, Dial, Flint, Morrey, Newman, Sidebotham, Stoddard and Winchester. Dr. Thomas

Clay Edwards, State Councilor of Salinas, was present as a guest of the Society.

Dr. Barry reported a case of catarrhal appendicitis with subnormal temperature and slow pulse that recovered without operation.

Dr. Sidebotham reported a successful operation for radical cure of inguinal hernia. Also another for strangulated hernia which was remarkable on account of the unusual vascularity of the parts.

Dr. Sidebotham read a very interesting paper, "A Study of the Dust of Santa Barbara," (which will appear in a subsequent number of the JOURNAL.) Dr. Edwards delivered a very interesting address, calling special attention to the duties of the Board of Censors and recommending that the society take the proper steps toward preventing the repeal of the present law regulating the practice of medicine.

The time of meeting has been changed to the second Monday instead of the second Wednesday in each month.

The following resolutions presented by Dr. Chas. Anderson, were adopted:

Resolved, That the Santa Barbara County Medical Society congratulates the Editor and Publication Committee of the CALIFORNIA STATE JOURNAL on the stand taken in regard to the publication of advertisements relating to secret and proprietary medicines; and expresses the hope that they may continue to maintain the position taken.

Resolved, That the action of the Council of the California State Society relating to the same is likewise approved.

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The Santa Barbara County Medical Society held its regular meeting in the Arlington Hotel, January 9, 1905. The following members answered to roll call, viz: Drs. Anderson, Barry, Cunnane, Mansfield, Morrey, Newman, Sidebotham and Stoddard.

The annual reports of the president and the secretary were read and placed on file, then followed an election of officers for the ensuing year. Dr. W. H. Flint, President; H. Sidebotham, Vice-president; W. B. Cunnane, Secretary; W. T. Barry, Treasurer; Charles Anderson, Delegate.

The Board of Censors having reported favorably on the application of Dr. C. E. Todd for membership, he was duly elected.

A very interesting paper on "Alcohol" was read by Dr Charles Anderson.

Dr. Philip S. Chancellor has just returned from his wedding tour in the East.

W. B. CUNNANE, Secretary.

ORGANIZATION AND UNITY.*

By J. LAMBERT ASAY, M. D., San Jose.

THERE is no theme to the observant physician upon which eloquence could be more worthily bestowed than the past and present of our State organization. Beginning as the unit of organized professional fraternity in the early history of California, its membership derived from those who left the older States to seek a home upon our shores, its action limited only by the necessity of the times, it blazed the trail for future development and intercourse. It left the imprint of its noble work and wise counsels upon the posterity which now abides with us. To its founders Time pays its tribute in words of admiration and gratitude for their sterling worth and professional zeal. We to-day do them homage by the memory of their brilliant minds, their courtesy, dignity and self-respect and above all, for their just pride in all those attainments which constitute the gentleman and ethical physician.

There came a time when every wave of the ocean, every turn of the wheels of travel brought to our land the adventurer, the mountebank and incompetent who plied their trade and imposed their wares upon a trusting people. A remedy was sought and found for these professional abuses and outrages upon an innocent and unsuspecting public. Laws were enacted to protect the people from the wiles of the quack and shyster, and their manslaughter checked. From this beginning all your present medical legislation has emanated and been fostered by the Medical Society of the State of California. As I have said, the State Society of this time was the unit of professional fraternity, education and ethics, and its duty was to preserve inviolate its trust. But the State Society is no longer a unit, but the sum of all units, and each separate unit is a county society to which is delegated the responsibility of upholding the dignity of the profession in their own locality, and in all matters of business and legislation taking the place, through their representatives to the State Society, of the parent organization.

I thus call your attention to one of these units; a unit which time and again has received the plaudits of all the others, not only for the educated material with which it is possessed, but also for its unanimity and fearlessness in the maintenance of the honor of the whole medical profession. Of this, you who visit with us to-night show by your presence your just and manly pride in our past contribution to medical history. The Santa Clara County Medical Society needs no encomium other than the record of her works, and when the great scroll shall be unrolled, our altars torn down and made desolate, aye, when this great globe itself shall melt away, then, through the ascending pillars of fire, these records will still shine, unaged by years, unmarred by time, for they are written on tablets of living stone and based on eternal truth.

As the experiences of life multiply upon us, we grow less observant of the flight of time and each succeeding year seems shorter than its predecessor. As we pass the meridian and step upon the down grade of our pilgrimage, how ought this reflection to remind us that the day will soon pass and the night will come when no man can work. Then let us gather up strength, and, as one by one the opportunities of life pass and fade away, let us bring higher resolves, nobler devotion and more fervent zeal to make the Santa Clara County Medical Society the brightest gem in the constellation of all the units which compose the State Society.

*Read at the banquet at the annual meeting of the Santa Clara County Medical Society.

MEDICAL SOCIETIES.

Redlands Medical Society.

The regular monthly meeting of the Redlands Medical Society was held in the Y. M. C. A. parlors on Wednesday afternoon, December 21, 1904, Dr. J. E. Payton, presiding. The members present were Drs. J. A. Shreck, D. C. Strong, E. E. Major, C. C. Browning, J. E. Payton, G. H. Scott, H. Tyler, W. A. Taltavall, C. E. Ide, T. M. Blythe and J. M. Wheat. Dr. C. H. Alden, a retired surgeon of the United States army, and Drs. M. M. Hooton, J. L. Avey and H. M. Haskell were visitors. The committees having charge of the arrangements for the fifth regular semi-annual meeting of the Foothill Medical Circle, which was held in Redlands on November 16, 1904, reported that the session was a profitable and enjoyable one in every way, that all bills had been paid, and that there remained of the entertainment fund a surplus of $42.50. The society voted to accept the reports and to retain the surplus in the treasury as an entertainment fund for future use. In view of the fact that the State Medical Society meets in Riverside in April and the American Medical Association meets in Portland in July, a motion was adopted that the spring meeting of the Foothill Medical Circle be omitted. Dr. J. L. Avey was elected a member of the society. An able paper on "Typhoid Fever," written by Dr. D. C. Strong was read by Dr. C. E. Ide in the absence of the author, and led to an interesting discussion, in which all present took part. Dr. C. C. Browning, president of the San Bernardino County Medical Society, asked consideration for some resolutions to be presented to the Legislature this winter in favor of maintaining the present vaccination law,

increasing the powers of the State Board of Health, and establishing State Sanatoria for the care of the tuberculous poor. After some discussion the resolutions were referred to a committee consisting of Drs. Browning, E. E. Major and C. E. Ide, with instructions to report at a special meeting on December 28. The society met on the appointed day, heard the committee, and, after considerable discussion, voted to accept the report. The resolutions adopted are as follows:

Whereas, Small-pox was formerly one of the most common and dangerous diseases; and whereas, through vaccination, it has been made to disappear, in its most dangerous and hideous forms at least, from all civilized nations; be it

Resolved, That the Redlands Medical Society hereby affirms its belief that efficient vaccination is a protection against small-pox; and that, when performed by a capable, authorized physician, and followed by cleanliness on the part of the patient, it is an entirely safe and harmless measure.

Whereas, There is no more important function of government than the care of the health of the people; and whereas the State Board of Health of California, owing to inadequate and inefficient laws, is hampered in the discharge of its duties and powerless to fully protect the health of the citizens of the State; be it

Resolved, That the Redlands Medical Society does most heartily appreciate the efforts of the State Board of Health in behalf of the people, and it endorses and hereby pledges its influence to the support of the bill to be introduced at the coming session of the State Legislature whereby the powers of the State Board of Health and its efficiency shall be increased and the best welfare of all our commonwealth conserved.

Whereas, Tuberculosis causes a much greater mortality than any other disease in the State of California; and whereas it has been demonstrated that tuberculosis is a curable and preventable disease, and that sanatorium treatment has proven most beneficial to the afflicted and affords the greatest protection to those who are well; and whereas this form of treatment is denied to the great mass of the poor, among whom this disease is most prevalent, unless they receive public aid; be it

Resolved, That the Redlands Medical Society urges the State Legislature to adopt such measures as may be necessary to provide for the establishment of State Sanatoria to be devoted to the care of the tuberculous poor.

WM. A. TALTAVALL, Secretary.

California Academy of Medicine.

Regular meeting held in San Francisco, December 27, 1904, the President, Dr. Dudley Tait, being in the Chair.

"Unilateral Pulsus Paradoxus." Dr. A. W. Hewlett exhibited a patient presenting a one-sided pulsus paradoxus. About eighteen months previously, he had suffered from an acute illness at the close of which the left side of his chest was noticed to be much smaller than the right side. At the present time, the air enters only the upper front of the left chest, the remainder of this side being much retracted, flat on percussion, and without breath sounds. The left pulse is normal, showing on deep inspiration a slight quickening accompanied by a slight diminution in the size of the individual beats. On deep inspiration the right radial pulse disappears entirely and does not return so long as the position of deep inspiration is maintained. If the right shoulder be passively elevated, however, the pulse does not disappear on deep inspiration. The brachial and axillary pulses disappear with the radial, but the subclavian above the clavicle continues to pulsate under all circumstances. The artery is therefore pressed out as it crosses beneath the clavicle, possibly between the clavicle and the first rib or by the fascia.

Dr. Ophüls suggested that the disappearance of the pulse might be caused by an inspiration dragging on the heart or blood vessels by adhesions and that this might cause a kink in the subclavian artery as it crossed the first rib.

"An Epidemic of Diphtheria at Stanford University." Dr. R. L. Wilbur reported his personal experience in the recent small epidemic of diphtheria at Stanford University and Palo Alto. The origin of the epidemic could not be definitely traced. Of the 43 cases which came under his observation in four the infection involved the larynx, in three the mouth, in one the nose, and in one the conjunctiva. No deaths occurred in this series and no intubations were necessary. It was often possible to make an early diagnosis by the use of a throat mirror and probe, thereby discovering small exudates on the tonsils which might otherwise have been overlooked. Cultures were made by dislodging a piece of the membrane and smearing it over the culture medium, and in no case was a positive diagnosis made until the cultures were positive. Subnormal temperatures and slow pulse rates were frequent in this series.

All patients with but one exception were treated with large doses of antitoxin, 4,000 to 36,000 being given. An initial dose of 4,000 units was administered to any patient who presented the clinical appearance of diphtheria, and this amount was repeated within six or eight hours unless marked improvement had followed. Although urticarial rashes were seen in a number of patients, the speaker was inclined to doubt that the antitoxin caused all of these for otherwise healthy individuals in the vicinity likewise had had urticaria and the speaker has seen rashes in conjunction with other forms of angina. Of 287 persons who had been exposed to the disease and who received prophylactic doses of antitoxin only one developed diphtheria and he had received only 500 units, whereas 1000 were usually given. By the use of these prophylactic injections of antitoxin, combined with the use of general preventive methods, the spread of the epidemic was controlled even though it had invaded fraternity houses. It lasted about six weeks in all and for the past two and a half months no new cases have been reported.

Dr. G. H. Evans approved of the large doses of antitoxin used by the speaker. He said that since the introduction of antitoxin, he bad noticed many more rashes accompanying diphtheria, and believed that these were due to the use of the new treatment.

Dr. Wilbur stated that he believed that the rash frequently resulted from the antiseptics added as preservatives to the serum. He has noticed that the serum put up by certain manufacturers seems more liable to give rashes than that put up by others.

"Abortive Treatment of Gonorrhea." Dr. Geo. Gross reported a case of gonorrhea which was aborted by the use of Engelbrech's method. The patient was seen three days after coitus and gonococci were demonstrated in the slight discharge. The anterior uretha was irrigated with 500 c. c. of a .5 per cent. solution of silver nitrate under a pressure of 1.25 meters, and the fossa and meatus were swabbed with a 3 per cent. solution of the same salt. Six hours later the irrigation was repeated using a .2 per cent. solution of silver nitrate. In the pus examined six hours after the first irrigation, no gonococci were found and they remained permanently absent. The discharge had ceased entirely by the end of four days. The treatment caused some pain, but less than one would expect.

Dr. R. L. Wilbur said that there was danger of doing harm by the use of abortive treatment for gonorrhea.

Dr. Gross said that these dangers were minimized by the use of large quantities of a relatively dilute solution, administered under a known pressure, thus eliminating the danger of having the irrigating fluid enter the posterior urethra.

A. W. HEWLETT, Secretary.

PUBLICATIONS.

The Anatomy of the Brain.—A manual for students and practitioners of medicine. The brain of the sheep (ovis aries) being selected for description because of its availability and its practical identity with the human brain for laboratory use. By J. F. Burkholder, M. D., Professor of Anatomy in the Illinois Medical College and the Illinois Eye, Ear, Nose and Throat College, etc., with an introduction by Prof. Henry H. Donaldson of the Neurological Laboratory of the University of Chicago. With 36 full page plates. G. P. Engelhard & Company, Chicago, 1904. Price $2.00, postpaid.

The author rightly states in his preface "that the teaching of the architecture of the human brain has been a failure for the average medical student, not because of a want of very many admirable works on the subject, but on account of the great scarcity of appropriate laboratory material, or perhaps the proper appreciation of the material ready at hand." For this reason he advocates the use of the brains of sheep which are easily procured and so closely resemble the human brain that they can be dissected by the student without fear of gaining wrong impressions. The method is not entirely new, but a systematic description of the brain of the sheep has not been previously presented in this form. The text is written in a clear style and the illustrations are good.

W. T.

Practical Dietetics.—By A. L. Benedict, A. M., M. D., Councilor American Gastro-Enterological Association; Fellow American Academy of Medicine; Consultant in Digestive Diseases City Hospital for Women, and Riverside Hospital, Buffalo. Chicago, G. P. Englehard & Co. Price $1.50 net.

The author states in his preface that "a work on dietetics could best deserve the qualification of practical by assuming that the reader has at his command technical culinary skill." Considering that in but two medical schools in the United States instruction in dietetics is given, we wonder how many recent graduates can intelligently criticize or direct the preparation of a special meal or diet in certain diseases? While the student will not learn from this volume the principles and practice of food preparation, he will learn a good deal about dietetic needs in health and in disease. The chapters (VIII-IX) dealing with diet in diabetes and obesity are particularly well written. A lucid and concise exposition of dietetics "of the period of growth," i. e., Diet in Infancy (Ch. X-XI) with tables, prescriptions, etc., make the book exceedingly valuable to the general practitioner. We regret that the chapters dealing with diet in alimentary, cardiac, and renal diseases, give limited consideration to food and drink in diseases of these systems. On the whole the work is well and ably written, and we hope will prove useful to student and practitioner alike. We heartily commend the work. A. P. L.

A Laboratory Manual of Anatomy.—By Llewellys F. Barker, M. B. Tor., Professor and Head of the Department of Anatomy in the University of Chicago and Rush Medical College. Assisted by Dean DeWitt Lewis, A. B., M. D., and Daniel Graisberry Revell, A. B., M. B., Instructors in Anatomy in the University of Chicago. J. B. Lippincott Company, Philadelphia and London, 1904.

The object of this book is to provide students with a more thorough and more systematic book for use in the dissecting room. The works at present existing do not include many of the methods now used in the teaching of anatomy, and furthermore their descriptions are couched in the language of the old nomenclature. Barker's work well serves to introduce the student to the new anatomical nomenclature which has entirely pervaded German works on Anatomy, and is gradually invading the works of English speaking people. The introductory chapter of the work is taken up with remarks on the instruments needed, the clothing to be worn, the value of drawing, and the anatomical library. Especially to be commended to students and teachers of anatomy are the remarks regarding the general conduct and surroundings of the dissecting room in which the writer deprecates the old-style surroundings of tobacco smoke, spitoons, and dirty old clothes and suggests the substitution of frequently changed, white gowns, and ventilation. The section relating to libraries also contains suggestions as to training students in looking up literature, a branch of training which is sadly neglected at present. The remainder of the book is taken up with a systematic description of the dissection of the different regions of the body. The instructions are clearly worded, and most of the scientific terms which are in a foreign language are translated and explained. The book is well arranged, well printed, well illustrated, and contains an excellent index. It is calculated to serve well the purpose for which it is intended. G. B.

New Methods of Treatment.—By Dr. Laumonier; translated and edited from the second revised and enlarged French edition by H. W. Syers, M. A., M. D. Published by W. T. Keener & Co., Chicago.

This book should be very cautiously read and many statements of the author accepted as merely tentative and open to much criticism. Such a mental attitude would naturally suggest itself to the thoughtful physician when considering the merits or demerits of any treatise on the newer remedies. No matter what the general reputation of an author, unless his absolute integrity is personally known to the reader, a certain element of suspicion is bound to intrude itself when one reads the high commendations of new, little tried and much patented and trade-marked remedies. Much of the book is excellent, particularly the portions relating to nutritive alterants, and dealing with lecithins, nucleins, etc. On the other hand, one cannot accept as unquestioned such statements as the following: "Even when tuberculosis is advanced and accompanied with febrile symptoms, (disodic methylarsinate) has given encouraging results, less certain and less satisfactory, it is true, than when the disease is in an earlier stage, for it seems that then cure, if not the rule, is at least frequent." And again: "In malaria and malarial fevers the result of this treatment is, according to Dr. Billet, constant, definite and decisive. Whatever may be the type of the fever, even in pernicious forms, the attacks disappear, and do not return when disodic methylarsinate is given two or three times at most by means of hypodermic injection."

The author's use of the word adrenalin is to be seriously deplored. In this work he devotes some space to a consideration of the active principle of the adrenal gland, which he designates by the foregoing and controlled name. Most chemists and savants generally have retained the uncontrolled name suggested by Abel—epinephrin—and this should always be used to indicate the active principle under question, rather than any one of the numerous trade names for the ten or a dozen different brands upon the market. Such usage tends to somewhat discredit other portions of the book that might otherwise carry greater weight with the reader. In dealing with the various serums the author does not stick to his predetermined attitude, as expressed in the preface, wherein he says that he proposes to give information only "concerning the new drugs and methods of treatment whose worth has been established and which are sufficiently well known to be described in a definite and practical manner." On the whole the book cannot be considered as other than premature and dangerous in the hands of the busy practitioner who cannot undertake to investigate many of the still open questions for himself.

Some Publications of the Physiological Department of the University of California, dealing with the action of Purgatives and Diuretics.

These papers are mostly from the pen of J. B. MacCallum, and give the results of the work he has been carrying on for the last two years on the action of purgatives. The main points relating to the action of saline purges which are brought out by these papers are as follows: That the saline purges do not produce purgation by their direct action on the wall of the intestine alone, as was formerly supposed, but that they also act when introduced into the circulation by the subcutaneous route. That the purgation is produced partly by increased peristalsis, and partly by an increased secretion from the cells of the mucosa. That this is a true secretion and not a mere abstraction of fluid from the blood is shown by the fact that it occurs in segments of intestine removed from the body, where a circulatory origin for the fluid is excluded. This action of the saline cathartics (barium, magnesium, and sodium salts) can be counteracted by calcium chloride, a fact which may be of practical value in the treatment of certain forms of diarrhea. The effect of a neutral solution of cascara is in the main similar to the action of the saline purges. It produces an increase in the peristalsis and also an increased secretion of the intestinal juices, though this latter is not so marked as after the use of the saline purges. As far as the saline diuretics are concerned, MacCallum's results show that they act very much as the saline purges. The sodium, potassium, and barium salts cause an increased flow of urine, while the calcium salts inhibit diuresis. The common factor underlying the cathartic and diuretic action of these saline substances is their stimulating effect on muscle tissue of the involuntary variety, and their power of stimulating glandular secretion. These researches certainly greatly increase our knowledge of the action of these substances, and should lead to their more rational use as therapeutic agents. G. B.

The Japanese Floral Calendar.—By Ernest W. Clement. Published by the Open Court Publishing Company, Chicago.

"The Japanese are a nature-loving people and frequently give expression to their feelings by taking a holiday simply for flower viewing. At the proper season, the entire nation, so to speak, takes a day off and turns out on a big picnic, to see the plum blossoms, or the cherry blossoms, or the maples, or the chrysanthemums." The idea is a quaintly pretty one and the present little volume, profusely illustrated, shows a side of the Japanese character that is, in its charming romance, exactly the opposite of the intensely practical side shown in the conduct of the present war.

My Little Book of Prayer.—By Muriel Stone. Published by the Open Court Publishing Company, Chicago.

This is a charming little volume containing much food for careful thought and not a little good common sense. "I will not covet the gift that is yours, but will pray that mine own be revealed. I will not gaze with envious eyes while you mould the pliant clay, but I will take up mallet and chisel and go to work myself." And again: "I longed for opportunity to do my work, for conditions that would foster and advance, and just to prove the earnestness of my desire, that I could do the work were these things mine, I set about and did it while I pined."

The Napoleon Myth.—By Henry Ridgely Evans. Published by the Open Court Publishing Company, Chicago.

This is a rather curious volume dealing with the growth and development of the mythological element attaching to any prominent character. The preface is by Dr. Paul Carus and the essays of Mr. Evans are preceded by a reprint of the now very rare and almost forgotten work of Pérès, "The Grand Erratum", a satire in which the non-existence of Napoleon is demonstrated.

Other Publications Received.

Aseptic Technic of Abdominal Surgery with the Topographical and Visceral Anatomy of Male and Female Abdomen.—By H. O. Walker, Detroit.

Annual Report of the Surgeon-General of the Public Health and Marine Hospital Service of the United States for the year ending Fiscal Year 1904.

A Method for Inoculating Animals with Precise Amounts.—By M. J. Rosenau. Bul. 19, Public Health and Marine Hospital Service.

Transactions of the Medical and Chirugical Faculty of the State of Maryland. One Hundred and Sixth Annual Session; April, 1904.

Fourth Annual Report of the New York State Hospital for the Care of Crippled and Deformed Children.

Plastic Operations for Resection of the Nasal Septum and Excision of Septal Spurs.—By George H. Powers.

Physician's Pocket Account Book.—By J. J. Taylor, M. D. Published by the Medical Council, Philadelphia.

Transactions of the Indiana State Medical Association. Fifty-Fifth Annual Session; 1904.

The Chemical Composition of Apples and Cider. Bul. 88 of the Department of Agriculture.

History of Pediatrics and Its Relation to Other Sciences and Arts.—By A. Jacobi.

Transactions of The Medical Association of Georgia. Fifty-Fifth Annual Session; 1904.

New Organization Work in Indiana.—By J. N. McCormack.

Bitemporal Hemianopsia.—By F. B. Tiffany, Kansas City, Mo.

Immunity from Consumption.—By Cyrus L. Topliff.

Leprosy in North America.—By Isadore Dyer.

NEW JERSEY'S APPROVAL.

Dr. Jones, instead of receiving the support and encouragement, which his manly and unselfish course deserves, seems to get abuse from some, misrepresentation from others, and the cold shoulder from all.

For our part, we never could understand how medical men, or any other men, could reconcile it with their consciences to persistently say one thing and do another.

Medical societies with great particularity will lay down elaborate rules of conduct, which they are pleased to call ethical, and then wink at the disregard of these same high sounding laws by their publication committees and advertising agents.

One would think that no medical man, except Dr. Jones, was ever born with a sense of humor; otherwise, rich and powerful medical societies would not make themselves ridiculous and stultify themselves for gain. While calling aloud to the whole world that they are spotlessly pure and exquisitely ethical, some of them have their hands sunk deep in the mire and their pockets lined with the money that is the price of their shame and the evidence of their duplicity.

We would fain believe that much of this is due to carelessness and the unbusinesslike habits of medical men. But that excuse constantly grows more diaphanous.

The young ostrich thinks himself hidden when his head is in the sand, and our "ethical" medical writers and publishers esteem the flagrancy of their conduct covered up when they can point to the undeniable fact that other journals are equally guilty.

What folly! What hypocrisy! Like the Pharisees of old, they make tithe of mint and cummin and neglect the weightier matters of the law.—*Journal of the Med. Soc. of New Jersey.*

RUPTURE OF THE SEMILUNAR CARTILAGE.*

By F. O. PRYOR, M. D., Scotia.

I WAS recently called to see a man whom the messenger stated had dislocated his knee. He gave the following history:

An hour and a half previously, while on his way to supper, patient jumped across a small ditch, alighting on his right foot. He immediately fell, and was unable to arise, and upon being helped to his feet, could not walk. He suffered only slight pain at the time. Patient stated that he had "sprained his knee" four years ago while playing football, the accident disabling him for about three weeks. Two years later he injured his knee while springing across a puddle of water, falling as he did this evening. His surgeon told him he had dislocated the cartilage in the knee joint. Reduction was accomplished, and after a few days' rest he was quite well again. He wore an elastic bandage for about a year after this second accident. During the last year he has worn no support, but has had no trouble with the joint.

Upon examination, I found the leg flexed. The joint was free from swelling, and was normal in appearance. There was no spontaneous pain. Palpation revealed no evidence of faulty relation of the bony parts. He was able to completely flex the leg on the thigh, but could not extend it beyond an angle of 135°. Attempts on my part to extend it further caused sharp pain in the joint. Internal and external rotation were present to a normal degree. Patient stated that after his second injury the doctor showed him the cartilage projecting "out of the joint," and that he could feel it plainly, but said this injury did not appear to be the same sort.

From the history of the case, and my examination, I felt certain that he suffered from an inward dislocation of the inner semilunar cartilage, a portion of which had probably been torn loose in his first injury. I neglected to state that the outward dislocation at the time of the second injury occurred at the inner aspect of the joint.

My first attempts at reduction were not successful; and it was not till I had consulted my books that I very readily accomplished the desired result by inward rotation of the leg, followed by sharp flexion and then extension. I immobilized the joint, and advised a week's rest. The man, however, went to work on the fourth day. I saw him about two weeks after the accident, and he stated that he had again dislocated his cartilage a few days before. Being a close observer, he had carefully noted my manipulation of his injured member, and after his second misfortune had directed his brother so successfully that reduction was accomplished after half an hour's work. He was kind enough to state, however, that I did not hurt him so much as his brother. He keeps the knee bandaged, and hopes, with care, to avoid further trouble.

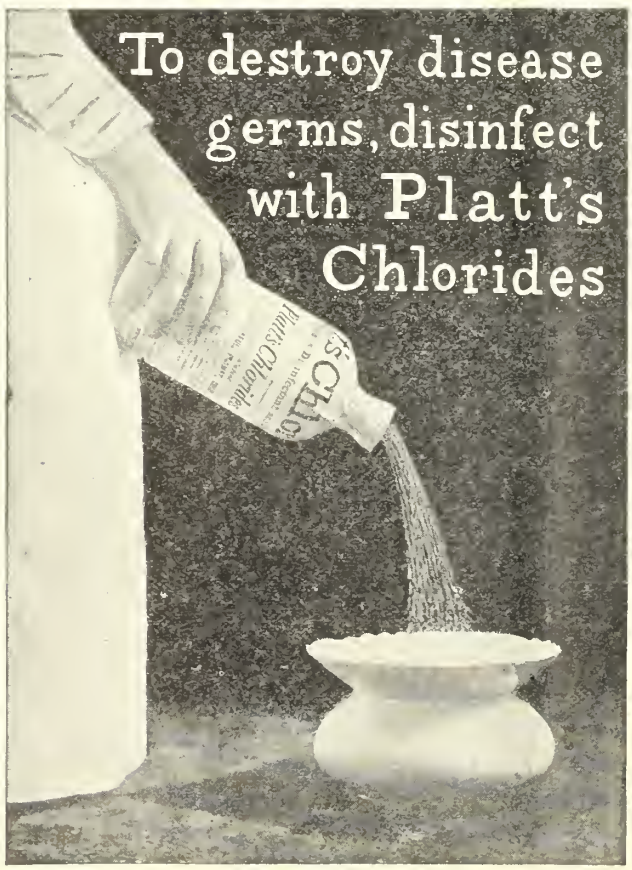
Tillmanns states that dislocation of the semilunar cartilages consists, as a rule, in merely a partial displacement with incarceration of the same between the bone, in consequence of rupture, for example, of the anterior or posterior accessory ligament of the cartilage itself. The dislocation is therefore more correctly designated as *rupture* of the semilunar cartilage. The dislocation of the inner cartilage is twice as frequent as that of the outer one, because the former is more fixed than the latter. The dislocation arises ordinarily from violent rotation of the knee when flexed. We sometimes have to do with a gradual and not a sudden loosening or separation of the attachment of the cartilage. The condition is favored by relaxed ligaments, by arthritis deformans, etc. Reduction sometimes ensues spontaneously after a few moments; that is, the nipped edge of the cartilage becomes free again and the symptoms disappear at once. The dislocation often recurs and becomes chronic. Massage and an elastic knee-cap are advised.

H. Allingham has described in detail nine cases of removal of the semilunar cartilages and twelve cases of suture of the same. The results of operative treatment are satisfactory.

*Read before the Humboldt County Medical Society.

Some Confusion.

It is reported to the JOURNAL that there is more or less misunderstanding as to the control of a private hospital in San Francisco formerly operated by Dr. A. Miles Taylor. Dr. Taylor gave up control of this institution some months ago, at which time it was taken over by Mary Patton and is now known as the "Mary Patton Hospital."



IN an address on Pulmonary Tuberculosis read at the State Medical Association, Waco, Texas, Professor David R. Fly, A.M., M.D., stated: "The chief medium of contagion is the atmosphere impregnated with dry particles of sputum expectorated upon sidewalks, flooring, bed or clothes, etc. It is obvious, then, that those engaged in making beds, sweeping and dusting rooms occupied by tuberculous patients, are most exposed. This danger, however, can be materially lessened by sprinkling the rooms with a solution of Platt's Chlorides, one part to ten of water."

The cuspidor should be washed out daily with boiling water, and a mixture of one part Platt's Chlorides and four of water kept constantly in it to receive the sputum. The patient's clothing should be kept by itself, and thoroughly boiled when washed.

FORMULA—A combination of the saturated solutions of Chloride Salts proportioned as follows: Zn 40 per cent., Pb 20 per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent. K 5 per cent.

California State Journal of Medicine.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

MARCH, 1905.

NOTICE!

The State Society meets at Riverside, April 18th to 20th.

EDITORIAL NOTES.

A LITTLE HISTORY.

On page 70 will be found a statement from the Publication Committee which we most respectfully urge upon your careful consideration. It has been said that we, who are in charge of your JOURNAL, have made misstatements and misrepresentations in connection with the matter of what is and what is not proper advertising and in our criticisms of the *Journal of the American Medical Association*. In making these criticisms we have been actuated by two motives. First, we have regarded and do now regard it as our plain duty to do all within our power to aid in correcting one of the worst, if indeed not the very worst evil in medicine—the use and promotion of the nostrum. Second, we found, almost at the beginning, that all effort toward correction was seriously obstructed by the persistent manner in which the *Journal A. M. A.* did not abide by the reasonable rule first made in 1895 by the Board of Trustees. Just what we mean is clearly shown by the following extract from an editorial which appeared in the *Virginia Medical Semi-Monthly* for January 13, 1905. The editorial dealt with proprietary mixtures and with the proposed Association of State Medical Journals with the object of trying to correct some of the abuses of medical advertising:

"It is a well-fixed principle in good government that the servant must not be above his master. As long as the *Journal of the American Medical Association* accepts such advertisements, it is idle foolishness for the smaller journals—the so-called State Journals—to say that they will not."

OUR STATE LEGISLATORS.

It is rumored that the legislators at Sacramento have gone crazy, and there seems to be some ground for the rumor. The anti-vaccination bill passed the Senate and we learn that it is very liable to pass the Assembly, though at the time of writing the final result is not known. Messrs. Haskins, McKee, Rambo and Pendleton of the Senate Committee on Public Health and Quarantine, recommended that a bill authorizing a Board of Examiners of the "Naturopathic" school (?) be passed, and it was promptly ordered on the file for second reading. If the bill should become a law there is no known form of quackery that would not be licensed in California. The bill, in several places, refers to "a recognized college of naturopaths;" did anyone ever hear of such? Candidates may be examined by the board in the following subjects: Anatomy, physiology, chemistry, botany, gynecology, obstetrics, *knifeless or orthopedic surgery, hydropathy, electricity, massage, chiro-practice, medical gymnastics, chromopathy, and suggestive therapeutics!* One wonders why eddyism and magnetic healing were omitted! And imagine a committee of men having sufficient intelligence to be elected to make our laws, recommending that such utter and awful rot "do pass" and become a law of the State! There are about the usual number of cinch bills and somewhat more than the usual number of foolish bills on the list. Quite a few of the proposed laws relate more or less to things medical, but few of them are of any particular importance. There are numerous measures intended to prevent adulteration and misbranding of foods and drugs, and most of them are good, but if they are passed, the State has not enough money to enforce them, even if it desired to do so. Two bills to provide for registration of nurses have been introduced; one provides for a board to be drawn from the State Nurses' Association, and in the other the board is to be selected by competitive examination. The former, Assembly Bill No. 452, is by far the better measure. Assembly Bill No. 267, emasculating the present medical law, is, at the time of writing, still in committee, where it should remain; no better burial place for a most vicious bill could be found. It would be a sorry day for the people of California if the measure should become a law. It is difficult to prophesy what will and what will not be enacted, for, as we have said, it is strongly probable that a large number of our legislators have gone crazy.

After the above was in type word was received that the anti-vaccination bill passed the Assembly by a vote of 42 to 35. It is therefore up to the Governor.

MISPLACED CONFIDENCE.

Many physicians who subscribe for and read some of the larger weekly medical journals repose, and generally with reason, great confidence in the editorial opinions expressed by them. As a rule this confidence is justified, for it is only seldom that the editorial pages are sold for the purpose of exploiting some particular preparation, though this occasionally happens. Gradually and instinctively, the confidence reposed in the editorial and reading pages extends to the advertising pages and the doctors who receive the journals grow to place confidence in the things advertised. Our attention is particularly drawn to the matter by an editorial in the *New York Medical Journal* of January 21, 1905. In this issue is a plea for support of the journal and for more subscribers. Attention is called to the excellent material offered in the first issue of 1905, and the following statement then appears: "There were also 40 pages of clean, ethical advertisements from houses whose commercial standing and products are beyond reproach." Doubtless a number of the readers of this valuable journal read that editorial—and believed it. If they were thinking men and looked at the advertising pages, they must have concluded that the definitions of "clean" and "ethical" had been recently revised, for among the lot of advertisements there appears to be but one proprietary accompanied by a formula, and amongst the many are to be found the following: goat lymph compound, antiphlogistine, tongaline, Pond's extract for bleeding piles, seng, unguentine, vapo-cresoline, fig-syrup, etc. Is not this a truly choice collection of "clean, ethical advertisements?" Does it not exhibit a colossal impudence on the part of the publishers to fill their advertising pages with such stuff as this and then ask a self-respecting profession to support them? Just think a little before subscribing for a journal that will undermine your own professional interests by advertising such things as appear in the pages of this journal.

THE HALL OF FAME.

Last month the *Western Medical Review* discussed the nomination of names of physicians for the Hall of Fame. In all there are to be 150 names of illustrious Americans in the Hall of Fame, and the nominations are to be so made that the full complement will be reached in the year 2000. In October, 1900, 29 names were selected, but the medical profession was not represented. This year 26 names are to be selected in order to complete the first 50, and hereafter five names will be added every five years. The names of Benjamin Rush, Valentine Mott, and J. Marion Simms are already in formal nomination, and the editor of the *Western Medical Review* suggests the following additions: Wm. T. G. Morton, David Ramsay, John Collins Warren and Oliver Wendell Holmes. Dr. H. Winnett Orr, Lincoln, Nebraska, (the editor) has prepared a set of postal card ballots and will furnish the set to physicians for 12 cents. "Each physician is requested to sign the cards of those physicians whom he most desires to see elected. In this way we may succeed in convincing the board of electors of our desire to honor the great physicians of our country—which in 1900 we failed to do."

BOOK REVIEWS.

As a rule, book reviews are merely a waste of good paper and ink. They are mostly made up of a few laudatory statements, generally extracted from the preface, and the reader gets but little idea of the real worth or worthlessness of the book itself. We know of several instances where members of the Society have been lead into purchasing practically valueless books through seeing such highly colored reviews. Publishers, quite naturally, like to sell their books, and reviews that merely praise help them in their business; they are not philanthropists who furnish physicians with pabulum for the good of humanity. The Publication Committee in conjunction with the Library Committee of the San Francisco County Society, have arranged to have truthful reviews of books written from time to time by men who are specially interested in the particular subjects and who are well qualified to express a candid opinion. We feel that we can quite safely assure our readers that they may place dependence upon the critical statements referring to new books which will hereafter be published in the JOURNAL. To publishers we desire to say that we shall give a very careful reading and express an honest opinion of all books which they wish to send in. We will even review some books that are not sent to us by the publishers, when we feel that they are works likely to be of interest to our members.

BIND YOUR JOURNALS.

Do you not wish to have your volumes of the JOURNAL bound and preserve them for future reference? Remember, these volumes are the full transactions of the State Society and also the transactions of most of the county societies. We have arranged to have the JOURNAL bound in half leather, a good and substantial binding, in lots of 50, for $1.00 per volume. If 50 members of the Society desire to have their volumes bound and will send them to us, we will have them bound for the price quoted. Of course this price does not include express charges of sending in the volumes or delivering them, nor will it apply except on lots of 50 or more volumes. If you find that a few numbers are missing from your files of the JOURNAL, but wish them bound, send them in and we will fill the gaps as far as we are able. Many of the older members of the Society who have large files of the bound Transactions should bind their JOURNALS and thus keep their files complete.

DANGER IN X-RAY EXPOSURE.

A warning against the haphazard and indiscriminate use of the X-ray by inexperienced operators seems particularly opportune at this time, as the lay press of San Francisco has so recently published the case of the unfortunate Mrs. Fleishman-Aschheim, whose arm was amputated, a few weeks ago, for an epitheliomatous degeneration caused by repeated exposure to these rays. Dr. P. M. Jones, the pioneer of this work on the Pacific Coast, suffered from X-ray burn of the hand as early as 1896; though in 1900 he gave up this work entirely, even at the present writing trophic and degenerative changes are going on in that important member of his anatomy. Other men have been forced to give up the use of this valuable agent on account of burns, or, as in one case, on account of neurasthenic symptoms such as have been early described by French authors. The literature germane to the subject describes the oblique action and dangers of the X-ray most comprehensively. But it seems that the general rank and file of the profession have not had sufficient access to these publications or taken cognizance of them.

The operator should be thoroughly protected by a lead screen. The use of the operator's hand to test the condition of the tube is extremely dangerous and accounts for many burns. Fluoroscopic examinations expose the operator to the action of a quantity of the rays; hence, if frequently resorted to, it becomes a decidedly dangerous method. Changes in the skin of patients treated by the X-ray take place, in many instances, even years after the exposure. These changes resemble closely the various scleroderma-like conditions of the skin. For this reason trivial conditions of the face, hands, etc., should not be treated with the X-ray as the sequelæ may be more serious and disfiguring than the original trouble.

THE URIC ACID FALLACY.

That the medical profession is a curious mixture of radicalism and conservatism is daily shown by the rapidity with which it accepts and uses new drugs, often recommended only by the commercial houses which manufacture them, and the equal tenacity with which it clings to ancient and shopworn theories long after they are discarded by the advance guard of the profession. The causes of both conditions are the same, the most important of them being the inability of the average practitioner to find the time or the inclination to keep up with the literature of his profession. The drug houses keep the practitioner well supplied with "literature" referring to their pet products, or upholding theories which it is to their advantage to exploit, whilst the true state of the knowledge referring to a given subject may often be obtainable only by a visit to a library, and the expenditure of some time.

One of the fallacies to which the mass of the medical profession has clung, in spite of the fact that it has been shown to be erroneous, is the uric acid fallacy. Everything from "nocturnal cramps" to "neuritic sciatica" (whatever that may be) has been ascribed to the malign influence of suboxidation and an excess of uric acid in the blood. The grip which this fallacy has upon the profession and the laity is voiced in a recent editorial in the *Journal of the American Medical Association* in the following words: "The false ideas concerning the mode of formation of uric acid in the body, its decomposition and its pathological significance have become so deeply rooted, not only in the professional mind, but, to a certain extent, in the mind of the laity, that it is unusually difficult to eradicate them."

The most widely accepted of the older theories concerning the formation of uric acid was that this substance was formed as an intermediary product during the oxidation of albuminous substances into urea. It was supposed that when oxidation was interfered with an excess of uric acid was formed; the term "suboxidation" is still one of the favorite catch-words in the so-called medical "literature" of commercial origin with which the office of the practitioner is flooded. This view has long since been superseded, largely as a result of the work originated by Fischer on the constitution of the xanthin bases and their relation to uric acid. To understand the views at present held, one must recall that three great groups of proteids exist which differ in their composition and physiological value. Cellular protoplasm, which is devoid of phosphorus, is the simplest form; next come the paranucleins, which give the reactions of albuminous bodies, and which contain small amounts of phosphorus, and finally the nucleins, which constitute the framework of the cellular nucleus, contain a large amount of phosphorus and are characterized by the presence of nucleinic acid. The splitting up of the nucleins gives rise to albumin and nucleinic acid, and the further splitting up of the nucleinic acid gives rise to thymic acid, and the purin or xanthin bases. The xanthin bases, hypoxanthin, adenin, and guanin are all products of the oxidation of purine, or of oxidation plus the addition of amines.

Uric acid is a product of the oxidation of xanthin, its relation to this base having been demonstrated by Horbaczewsky. The relation of nuclear substances to uric acid was proved by Wenstrand, who increased the uric acid output by administering thymus gland which is rich in nucleins. This, however, did not prove that all uric acid originated in nuclear substance, and this fact was first shown by the dietary studies of Hess and Schmoll, who proved that uric acid excretion was not influenced by albuminous diet, while foods containing xanthin bases influenced it markedly. The present view then regarding the formation of uric acid is that it is produced from nucleins, partly

from those of the body cells, partly, in all probability, from those introduced with the food. Whether or not it will be shown later that the state of the uric acid in the body may serve as an index of certain pathological conditions now ascribed to it, cannot at present be stated. It can be asserted, however, that uric acid has little, if anything, to do with many of the clinical phenomena for which it has been unduly held accountable. It follows from this that many of the statements found in the uric acid "literature" of today are based on insufficient or erroneous observation, and are unworthy of serious consideration by the physician.

THE RELATION OF THE AMERICAN MEDICAL ASSOCIATION TO MEDICAL ADVERTISING.

(A statement by the Publication Committee.)

Probably only a few of the members of our Society know that the advertising pages of the *Journal* A. M. A. have been the subject of criticism almost continuously for more than ten years past. That our members may know that we have not acted alone nor without sufficient consideration in the criticisms which have been made in the STATE JOURNAL, it has been thought wise to place before you a brief summary of the facts as they are to be found recorded in the pages of the *Journal* A. M. A.

In 1894 the Association met in San Francisco. For a long time prior to that meeting severe and just criticism of the advertising pages of the *Journal* had been made and at this meeting resolutions were presented that resulted in the practical impeachment of the Trustees and the management of the *Journal*. The matter was tried before the Judicial Council, but was to a great extent hushed up. So much had been said, however, that something had to be done and the following year, at the meeting at Baltimore, the Trustees officially recognized the justice of the critics in the annual report of the Board, for we find in that document the following:

"The editor, with the termination of present contracts, has been instructed to accept no advertisements of medicinal preparations, the proprietors of which do not give a formula containing the official or chemic name and quantity of each composing ingredient to be inserted as a part of the advertisement." *

This report not only recognized the evil but pointed out the proper remedy, a remedy that has been found to be a specific in the hands of your Publication Committee. **The quantities of the active ingredients per dose should be a part of every advertisement of a remedial mixture, otherwise it is a secret medicine and should not be used.** This, as we have seen from their report, the Trustees admitted in 1895, ten years ago.

There is some reason to doubt whether this ruling was intended to be followed; whether or not the intention was good, the subsequent course of the *Journal* shows that the rule was ignored and that little if any change in the character of the advertising printed in the *Journal* occurred during the five succeeding years. Complaints were made from time to time and by 1900 had become so numerous that again something had to be done. The Trustees considered the matter at their annual meeting, February 16, 1900, and as a result we find the following editorial in the *Journal* for March 31, 1900, page 821:

THE JOURNAL AND ITS ADVERTISING POLICY.

On February 26th, last, the following letter was handed to the advertising manager by the editor of the Journal, and a copy sent to all advertisers. It explains itself, and also the leading editorial in this issue:

Dear Sir: -At its meeting held February 16, 1900, the Board of Trustees of the American Medical Association adopted a resolution to the effect that the rule adopted by the American Medical Association at Baltimore in 1895, in regard to printing the formulæ of proprietary medicines advertised in the Journal, shall be hereafter strictly enforced. This makes it necessary that each insertion of an advertisement of a proprietary medicine must be accompanied with a statement showing the active ingredients it contains, and the amount of each ingredient to a given dose.

The Board also adopted a resolution to the effect that no proprietary medicine advertised directly to the laity shall be admitted to the advertising pages of the Journal.

You will please see that these resolutions are carried out consistently with existing contracts.

As a result of this action contracts amounting to nearly $2000.00 annually have already been refused or cancelled, and others will be during the next few weeks. We expect to say more on this subject in future issues of the Journal.

After five years, the Trustees again announce that the advertisement of a proprietary mixture cannot honestly be accepted by and appear in a medical journal without doing violence to well-recognized principles of medical ethics, unless the quantities of the active ingredients per dose are given as a part of the advertisement. This is precisely the rule which they said, five years before, would be followed, but which was, apparently, absolutely ignored from 1895 to 1900. Now, in 1900, the Trustees reiterate their former ruling, state that it shall be followed, and so notify the editor and the advertising manager of the *Journal*. Let us see whether it was lived up to any better after the second enacting than after the first.

As the rule is qualified by the statement that existing contracts shall be considered, a year's grace should be given to the management in which to effect the change. Let us examine the advertising pages of the *Journal* one year after the enactment of this rule "which hereafter shall be strictly enforced." If the rule has been rightly administered, if it is really intended that only ethical advertising shall find place in the *Journal's* pages, we should find a quantitative formula with each and every advertisement of a proprietary mixture.

Journal for March 16, 1901. There are over 40 proprietary mixtures advertised in this issue;' 6 of them give a quantitative formula. In a number of instances there is not sufficient information to tell whether the thing advertised is a chemical or a mixture. At least 2 of the proprietary mixtures are advertised to the laity; several mineral waters are advertised as remedies and some of these are also advertised to the laity. Thus, one year after the adoption of the rule, it was complied with in but 6 out of 40 cases. Among the advertisements of proprietary mixtures without formulas in this issue may be cited the following: Gray's tonic, pepto-mangan, fig syrup, anti-phlogistine, unguentine, vapocresolene, dioviburnia, chionia, chiolin, anhydrosine, citrophen, cactina, seng, etc. At least two are advertised to the laity.

Journal for March 22, 1902. This issue contains advertisements of 45 proprietary mixtures; 7 of them give a quantitative formula in accordance with the rule made two years before. There are also advertised a considerable number of remedies which cannot be classed on account of insufficient information: these are given the benefit of the doubt; it is assumed that they are chemicals and they are not included in the above list. Among the proprietaries may be found the following: Listerine, glyco-heroin, chionia, unguentine, seng, aseptinol, tongaline, hydrozone, glycozone, pavara pills, marach, etc. At least 4 proprietaries in this issue are advertised to the laity.

Journal for March 28, 1903, or three years after the passage of the rule "which hereafter shall be strictly enforced," promotes, in its advertising pages, 47 proprietary mixtures, and of these but 7 comply with the rule and present the formula. Among the additions to the list may be noted lapactic pills, uriseptin, ammonol, nutrolactis, ostro, santal-midy, etc. ("Santal-midy" is advertised in many daily papers.)

* *Journal A. M. A.*, May 18, 1895, page 760.

Journal for March 26, 1904. In this issue 51 proprietary mixture advertisements appear; 10 only present a formula in compliance with the now four-year-old rule. The following are some of the additions: Barlett's Pile Suppositories, satyria, glycobenphene, yohimbin, ergoapiol, Mey's poultice, etc.

Journal for June 4, 1904, contains advertisements of 58 proprietaries, and formulas, according to the rule, are found in 11 instances. This issue is here cited for the reason that your JOURNAL began calling the attention of the Trustees to the matter of advertising in August, 1904, two months later, and it is interesting to note the conditions before and after that time.

Journal for February 4, 1905 (the last issue received at the time of writing). This issue contains advertisements of 35 proprietary mixtures and in 21 instances the formula is given, or enough information is given to comply with the rule.

It appears from these facts that after your committee had for six months published criticisms of the *Journal*, the number of advertisements which comply with the rule of 1900 increased from an average of less than 20% to 60%. If this could be done in the past six months, why could it not have been done ten years ago, or even five years ago?

In the same volume in which the *Journal* announces its brave determination to adhere to the rule which had been ignored for five years, and which we have just seen was ignored for more than four years thereafter—and indeed is ignored in over 40% of its advertisements at the present time—is to be found much exceedingly interesting reading. Space will permit us to call to your attention only a few items of interest. From the leading editorial of March 31st we quote the following: "The Board of Trustees of the American Medical Association and the *Journal* have at various times made honest efforts to discriminate in these products, with special reference to excluding such of them from the advertising pages of the *Journal* as may not respond to the standard of ethics of the medical and pharmaceutical sciences."

Compare that statement with the actual facts as already shown from the *Journal's* own pages. Does it appear that these "honest efforts" had ever extended to the point of applying the twice-enacted rule which would have settled the difficulty?

Subsequent issues of the *Journal* contained a series of very interesting articles dealing with this question. In one of them "patent medicines" are discussed and "syrup of figs" is mentioned; as the class is condemned one would suppose that the advertisement of syrup of figs should not appear in the pages of a reputable medical journal. The *Journal* for March 16, 1901, the very next year, contains this advertisement.

Again, on page 1179 (*Journal* for 1900), in discussing another class of remedies we find the following: "From the fact that they are secret and are sooner or later exploited to the laity, they **should never receive medical patronage**. . . . . Other mixtures of similar composition are 'Ammonol' and 'Phenalgine,' or ammoniated phenylacetamid." Look in the *Journal* for February 4, 1905, the last issue at hand at the time of writing; on advertising page 17 you will note the advertisement of phenalgine, and on page 22 that of ammonol[2]—remedies which the *Journal* itself has stated **"should never receive medical patronage."**

Please remember that these are simply facts to be found in the pages of the *Journal* itself, and that anyone may verify them at his pleasure.

Has not the *Journal* condemned itself in its own pages, and has it not substantiated and approved every criticism that may have been voiced by your Publication Committee in the pages of your JOURNAL during the past seven months?

Presumably, the rule made in 1895, requiring a quantitative formula as a part of all advertisements of proprietary remedies, was a good rule or it would not have been again enacted in 1900, at which time the editor, the advertising manager and the advertisers were instructed that "thereafter it would be strictly enforced." Furthermore, had it not been a good rule, would it have been enacted for a third time, as was the case so recently as at the last meeting of the Association, at Atlantic City, when the report of the Special Committee on Proprietary Remedies was received? If it was not a good rule, why is it that the *Journal* has applied it to three times as many advertisements, in the past six months, as it had been made to apply to in the previous ten years?

Is the explanation of the *Journal's* failure to comply for ten years past with what must be conceded to be a rule of simple ethical decency, to be found in the letter from the Chairman of the Board of Trustees (infra)? And if this is the case, does it not demonstrate the absolute truth and justice of the statements which your Publication Committee have printed in your JOURNAL, to the effect that in the management of the Association's *Journal*, income received consideration before ethics, and dollars before principles of honest and upright living?

The Chairman of the Board of Trustees, in the STATE JOURNAL, November, 1904, page 329, says:

"As the *Journal* gets to be stronger financially it will be able to strike out every advertisement about which any question could be raised by the most extremely ethical faddist."

P. S. The *Journal* A. M. A. for February 11th was received after the foregoing statement was prepared. On advertising page 46 will be found the advertisement of "vapo-cresolene; Everybody's Munsey, Pearson, McClure, Leslie, Overland, Cosmopolitan, Argosy, Harpers, Scribners and other popular magazines for January and February also contain the same advertisement; in fact, it is and has been for some time, generally advertised to the laity. Query: Is the *Journal* A. M. A. a "popular magazine"?

1. As stated, a number of preparations advertised in each issue cannot be absolutely classified for the reason that there is not sufficient information given to determine whether they are chemicals or mixtures. On this account other observers might note figures that would not absolutely agree with those given, though they would, in the main, correspond.

2. The *Druggists' Circular* for February, 1905, in commenting upon a query from a druggist as to a prescription for ammonol and bicarbonat of soda, expresses surprise that any physician should have so little regard for the ethics of the profession as to make use of a secret remedy like ammonol, especially in combination with other drugs that might result in a disastrous chemical mixture. Why should not physicians use this nostrum when it is recommended to their attention by the American Medical Association?

SURGICAL INTERFERENCE IN TUBERCULOSIS OF THE BLADDER.*

By GRANVILLE MACGOWAN, M. D., Los Angeles

(*Continued from page 38.*)

Case 6. January 14, 1898. Mr. F. Y., aged 35, bricklayer. He had been treated for stricture and cut and dilated to 34 F. under the belief that his urinary frequency arose from strictural obstruction. But the dysuria was as great as before, and he could not work at all, as he had to urinate every 20 to 30 minutes day and night. No hereditary tendencies. Had gonorrhea at 20, which lasted one year. Dysuria and hematuria first noticed five years ago. He was then treated for stricture by dilation, and this was followed by considerable hematuria and much pain. For the last three years he has passed blood at times, and at intervals small crusts and scabs.

Examination.—Penis and testicles healthy, urethra nodular, but a No. 28 F. steel conical bougie can be passed easily to the bladder. A number of cicatrixed patches can be observed by the endoscope. Bladder capacity under anesthesia, 50 cc. Prostate small but not nodular. Seminal vesicles distended; both ureters enlarged. Urine acid, contains blood, pus and tubercle bacilli.

Cystoscopic examination shows large traumatic ulcer at the summit of the bladder, which had undoubtedly been caused by the depression, between the thighs, of the handle of the sound, and there were several small tubercular ulcers in the right and left lower quadrants.

*Read at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April 19-21, 1904.

He seemed to be otherwise healthy, and I could find no evidences of tuberculosis in the abdominal organs or in the nose, throat or lungs.

Treatment.—Daily instillations of sublimate, 1-8,000, 1.5 cc. Internally, 0.7 of oil of wintergreen and Australian oil of eucalyptus t. d.

March.—Urinary frequency diminished to four times at night and hourly during the day. Methyline blue 0.015 three times a day. Bladder capacity, 150 cc. The instillations were continued until August, the strength of the solution being increased to 1-5,000. His urine then being nearly clear and urination necessary only every two hours, with practically no pain, the injections were stopped.

In October they were commenced again, and continued to the following March with great daily regularity. He then urinated about every four hours during the day, and only two or three times at night. He ceased treatment, and I did not see him again until the following September (1899), when he again took a course of regular daily treatment lasting until the end of November. The strength of the solution was increased to 1-4,000. He then visited me irregularly, taking a series of injections lasting from five days to two weeks, and got along very comfortably until September, 1900, when he began treatment again, and saw me every two or three days to the following April (1901).

Tubercle bacilli disappeared from his urine for more than two years. The application of sublimate always gave him relief, until in August and September, 1903, they seemed to lose their calmative power. The frequency of urination increased to once in fifteen minutes night and day, and the pain became unbearable. Many other agents were tried without benefit. I advised operative interference, so in November, my colleague, Dr. Ralph Williams, who had given him the active treatment for several years, assisted by me, did a supra-pubic section and curettage on him. The bladder was very thick walled and brittle. It was so small that an ordinary walnut would have filled it. It was drained for six weeks and then allowed to close. There was no relief of the symptoms, and later a fistulous opening occurring, advantage was taken of it to insert a small catheter which drains into a urinal. This was worn permanently with so much relief that he expects to return to work this month. Length of observation, six years.

Case 7, August 6, 1895. A. C. K., aged 53, married and reputed to be of good habits. No history of gonorrhea. He has been a stock raiser, and has spent much of his life in the saddle. Fifteen years ago he began to have great urinary frequency with dysuria. Three years ago the violence of the cystitis lessened, but has never disappeared. Recently there has been severe pain in the perineum, the dysuria and frequency have been greater, and he has been unable to sleep. Some prolonged respiratory murmur over upper lobe of right lung. Heart sounds normal. Abdominal organs negative. He passes 2,100 cc. of alkaline urine of a sp. g. of 1.015 daily, which contains, on microscopic examination, blood, pus, triple phosphates and tubercle bacilli.

Examination.—Penis and testicles healthy. Prostate healthy. Right seminal vesicle inflamed and tender. Rectal wall flabby, congested and with a tendency to prolapse.

Treatment.—He demanded operative relief. August 16th, sectio-alta. Intense subacute cystitis. About the trigone and bladder neck were a number of irregular superficial ulcers covered with a dirty yellow membranous deposit. Between and about these the tissues were sodden and edematous, looking and feeling gelatinous, much like inflamed lupoid tissue upon the skin. The sores were vigorously curetted with sharp curettes and their bases cauterized with stick silver nitrate containing 10% of caustic potassium. He did well for a week when delirium was noticed, but the quantity of urine remaining stationary, I suspected that he might be an alcoholic. He indignantly denied the use of alcohol at any time. He refused the whisky and wine which were ordered for him. He died August 26th of delirium tremens. His wife afterward informed me that he used a quart of whisky daily for many months before he entered the hospital. Length of observation, 20 days.

Case 8, February 23, 1895. Bernard T., aged 42, occupation sheepherder. Frenchman, ignorant, stupid and unable to give any lucid previous history. Single, and a chronic masturbator. Lungs, heart and abdominal organs apparently healthy. Testicles healthy. Glans penis the seat of tubercular ulceration. Prostate nodular on both sides. Vesicles nodular. Urinary frequency, 20 minutes. Pain referred to glans; pain supra-pubically upon pressure. Urine acid, sp. g. 1.020, contains blood and tubercle bacilli. Bladder wall indurated, bladder capacity 30 cc. No cystoscopic examination attempted.

February 25th, sectio-alta and perineal section at Los Angeles County Hospital. Bladder walls thickened, ulcerated and edematous. Curettement with sharp curettes. Forcible dilation of the bladder neck and application of lactic acid in full strength. Drainage was continuous for about two months without apparent benefit. The wound closed with a double fistula which became tuberculous. His condition was regarded as incurable, and he was sent to the County Farm, where, under the influence of good air and good food, together with codliver oil and creosote, the perineal fistula healed in the following May. The ulceration of the glans healed under iodoform.

September, 1896, the supra-pubic fistula closed, and he could retain his urine for two hours, and he returned to his occupation as a herder. Length of observation, ten months.

Case 9, January 7, 1901. R. P. W., aged 39, married, factory foreman, Riverside. Came to California for his health about ten years ago. Had at that time what his physician termed bronchitis. He adopted an out-of-door occupation, becoming an orchardist and lumberman, and speedily recovered full health. He married and had three healthy-looking children.

Early in 1900, after exposure, he developed symptoms of pulmonary tuberculosis, but with very little cough. In August he noticed increasing urinary frequency, which, in September, was followed by painful urination and hematuria. This rapidly grew worse and the urine became purulent. He lost sleep, his weight decreased, and the pain became unbearable.

His physician examined him for stone about the first of January, 1901, and detected a calculus, which was deemed to be the cause of his urinary difficulty, and I was called upon to crush and remove it. This was done under chloroform narcosis unon the above date. It was a small, very rough, phosphatic stone, lying in a roughened and contracted bladder, but was easily removed. The prostate was very nodular, and there was perivesiculitis, but the vesicles appeared to be healthy. I suggested examination of the urine for tubercle bacilli.

Examination.—Urine acid, sp. g. 1.020; contains blood, pus, albumin, microorganisms and abundant tubercle bacilli in curled clumps. Quantity for 24 hours, 900 cc. As the bladder capacity was only 80 cc., in deep narcosis, I expressed the opinion that the removal of the stone would be of no permanent benefit. It lessened the pain for a few days.

January 31, 1901.—The process had spread to the left testicle and epididymus and there was a supnurative prostatitis. His suffering was unbearable. I did a perincal section, dilated the vesical neck with uterine dilators, curetted the prostate and bladder with sharp curettes, and removed the left testicle with the vas to the internal ring. The drainage tube was well borne, and it kept him very comfortable until he died, February 13, 1901, of general tuberculosis.

Case 10, March 29, 1903. Geo. Z., 27 years old, bricklayer. Had difficulty and frequency in urinating for about a year; was suddenly attacked with what his physician believed to be retention, accompanied by great pain. Under chloroform narcosis this was found to be cystospasm, the bladder being empty and capable of holding only 40 cc. Multinle strictures present in urethra. At 20 he had a gonorrhea which lasted for nearly a year; at 25 a second attack, which lasted for six months. A year ago, having some difficulty in urinating, he was tested for stricture, and the sounds he said pressed far down between his thighs, hurting him greatly, and sometimes causing hemorrhage.

I kept him under observation until April 4th. Urine acid, sp. g. 1.020, contained blood, pus, nuscocci and epithelial cells, but no tubercle bacilli. The tenesmus being continuous and not relieved by ordinary measures, he demanded operative relief. Little was promised.

Anril 4th, sectio-alta. The bladder was found thick walled, rough, and filled with grouped ulcerations, which were most abundant on the right lateral and posterior quadrants. It was also noticed that this side of the bladder was thicker than the left, and adhered to surrounding strictures. A firm curettage was done, and the bladder neck and the urethra carefully but thoroughly dilated with Kollman's dilators. Drainage by De Pezzer tubes, a retention catheter being tied in the urethra for the first 24 hours. Tubes removed in four weeks, and the wound healed entirely in five weeks. In the debris removed at the operation a few tubercle bacilli were found.

Treatment.—Until October with instillations of sublimate, borolyptol and silver lactate, rubs of iodin vasogen, and internally methyline blue with creosote preparations, without benefit. In November I found the strictures contracting so that with difficulty we could pass a cathcter. I then found a small calculus in him. Starting to do a sectio-alta through the old scar, I accidentally opened the peritoneal cavity before opening the bladder. I took advantage of this to examine the adhesions on the right side, and found they started from a chronically enlarged and inflamed appendix adherent to the bladder low down. This I removed and then loosened up the bladder in its bed, did a perineal section, and removed the calculus, which consisted of quite a mat of gravel cemented onto a bit of solid woven gut ligature, with mucus. In exploring the bladder, I found the walls much more smooth than they were at the first oneration. From the peritoneal side it felt as if it might be capable of expansion if it could remain free from the pericystic adhesions.

The wounds healed in two weeks. Both operations have been practically without benefit. He passes urine every fifteen or twenty minutes with great pain during the day, and dribbles at night. He is obliged to wear a urinal all of the time. By the free use of morphia he manages to do a little work at his trade. Length of observation, one year.

DISCUSSION.

Dr. George Goodfellow, San Francisco.—I am sorry that I did not get in in time to hear all of the paper,

so do not know what stand Dr. MacGowan takes in regard to operative interference in tuberculosis of the bladder or the genito-urinary tract. I judge that he rather advises operative procedure. My experience in tuberculosis of the genito-urinary tract, especially in the bladder, has led me to the belief that an inactivity, especially in the surgical way, is the best course to pursue; even in instillation of drugs I have found very little benefit derived. The results of operation have been unfavorable in this respect, that they light up a quiescent tubercle and the patient's life is usually shortened. Even the brilliant reports by eastern surgeons and by Dr. MacGowan would not lead me to interfere in any way with tuberculosis of the bladder, except it was to relieve the bladder.

Dr. George Chismore, San Francisco.—As this is a subject which has attracted my attention for a good many years, I am astonished to hear how different the experiences of the gentleman who has read the paper and mine are. The discovery of the local tuberculosis of the genito-urinary tract is comparatively recent. Very early, distinguished men gave it a great deal of attention in New York, and promulgated the idea of the supra-pubic section. I had great confidence in this judgment. Some cases occurred in my care, and they invariably died. About that time I saw an old man who had had local hip joint trouble in his youth, and I said, "Why may not a local condition in the bladder pursue the same course, if let alone?" My attention was very strongly directed in that way. I made careful observations on the subject, and early began to bring before the societies my view and to advocate the change in this matter. I continued in that course for all these years. I have kept absolute and accurate reports of these cases from that time until this. I published last year, at the request of the President of the National Genito-Urinary Association, a paper upon the subject. I have that paper here now, and it can express my views. (Paper read.)

Dr. J. Rosenstirn, San Francisco.—I would like to ask one question of Dr. Chismore in regard to that patient who died of intestinal tuberculosis. I had a similar case, a Mr. Brown, who had been operated upon for tuberculous epididymitis, who died four years afterward from perforation of the bowel. This gentleman had tuberculosis of the bladder, and had it when the operation was done. He died, it is true, three or four years later from a perforation, but it is impossible in such cases to accuse an operation on the genito-urinary organs to cause an outbreak somewhere else, because we do not know what other foci are in a tuberculous organism. In this case, also, with an energetic surgical interference perhaps that man would not have died. We might say in any tuberculous disease no surgical interference should take place, because we may injure some other organ. I do not know whether other organs will be injured, but we know that an organ which is tuberculous is injured, and if we can get at that focus it is the best procedure.

Dr. H. B. Reynolds, San Francisco.—Those who listened to the papers read this morning on the subject of tuberculosis must, I think, have been impressed with one idea, and that is the importance of the resistance of the soil. For tuberculosis of the bladder to get the best results, strengthen the resistance of the soil. It seems to me that the discussion this afternoon has ranged itself into two schools of practice. Dr. Chismore has suggested the inactive procedure. It seems to me that Dr. MacGowan has exercised that inactivity. By putting the bladder at rest he has diminished its functional work and given it a chance to get well. If we can reconcile the two schools of argument, we will probably follow both.

Dr. M. Krotoszyner, San Francisco.—I would like to report three cases briefly in connection with this work. The first case was a young man 23 years of age, seen in consultation with Dr. Tait. One testicle was amputated for tuberculosis, the other one was in danger. At the same time bladder symptoms started. Later we advised waiting. The bladder symptoms increased in intensity. The patient was sent to the country, first for six months and then for a year. At the present time he is perfectly well. The second case, a man of 30, referred to me from New York. He was from a southern city in California. One day he fell on the side of his desk and injured the sexual organs. Then he had painful micturition, and suffered very much. He came to San Francisco and was treated for three months, until the pains were so excessive that the bladder was opened and the tubercular foci curetted carefully. He could urinate again without any pain, and at intervals of two or three hours. He died finally from Bright's disease or tubercular nephritis. The third case, a man of 65, seen six years ago. Troubled with frequent micturition. No tubercle bacilli to be found. At that time, on the advice of Dr. Chismore, we sent him to New Mexico. He lived out of doors. Wrote from time to time saying that he had pains, etc. We advised him to return to San Francisco, and then we cystoscopised him and found a condition of tuberculosis. We treated him with local instillations, and afterward he went to Los Angeles, and two or three weeks ago I heard he was so well that it was never necessary to see a doctor. It is my opinion that it is just as well to adhere to expectant treatment as it is to adhere to operative. The importance of treatment lies in the condition of the patient. We should not let a patient suffer all his lifetime. Anyone who has seen these patients suffer knows how awful it is.

Dr. A. W. Morton, San Francisco.—I believe that the result in these cases is not so much curetting the ulcers as it is giving the bladder a rest. The essential thing is to give rest to the organ. About a year ago I expected to operate upon a lady who had tuberculosis of the bladder, and had for four years been unable to sleep more than half an hour at a time on account of having to get up to void urine. At that time I saw Dr. Chismore, who discouraged the operation. So then I thought I would try the rest treatment and use a catheter. After a certain amount of treatment the ulcers in the bladder were not entirely well, but very much relieved. She had nothing but rest and irrigations with boric acid solution. Since then I have treated two male bladders for tuberculosis, and in each I carried out the same means; simply opening the bladder, placing the catheter and giving rest. One patient is entirely recovered, and the other getting along splendidly. I do not believe that the thorough curettement into the tubercular tissue is what cured these patients. I believe that when you curette you are not able to relieve all tissues, and you may open up spaces where tuberculosis may enter again and cause trouble.

Dr. A. Grosse, San Francisco.—I was very much surprised to hear the many brilliant results obtained by Dr. MacGowan. I stand with Dr. Chismore in believing that instrumentation is out of the question. I speak from experience with a few cases. Returning from Europe I brought with me a cystoscope and cystoscopised several patients. In one case following this treatment tremendous inflammation set in, resulting in abscess of the prostate and trouble with the epididymis. Thinking this probably due to the instrumentation, and getting another patient several months later, I again used the method of cystoscopy with the result of epididymitis. Dr. Chismore told me his ideas, and since that time I find my patients get along better since I have done away with all instruments. I do think that if the bladder holds a reasonable amount of urine, and if there is tremendous pain, surgical interference is justified.

Dr. MacGowan, Los Angeles.—I want you to understand that as far as general treatment of tuberculosis

of the bladder is concerned I agree with Dr. Chismore perfectly. I stated in my paper that there were cases occurring in my practice in which it seemed to be wise to do otherwise. The first case I reported was experimental. I wished to try the thing, and I had good success. I would not think with the experience I have had where the bladder is small, and particularly where there is trouble in the prostate, in the posterior urethra, in the epididymi or serious trouble in both kidneys, that the bladder should be opened for drainage. I do not think the drainage alone of any value. Most men who have had much experience, agree with me perfectly. I have been inclined to attribute, if anything, some of the virtue of the healing to the cystoscope. I have seen all symptoms of tuberculosis of the bladder disappear on four occasions where they had existed for a considerable time, after the prolonged use of the electrocystoscope. With regard to the presence of tuberculosis, whether the tubercle is in the eye or wherever it is, it is a foreign body. It exists there. If the soil is exactly right it will develop anywhere in the body. Those people God alone can save. If the soil is not exactly right, if you can get at the focus and remove it with the knife, with the Finsen light, with the X-ray or the curette, you will entirely cure that patient, for the time being at least. All those people are suspects at least, and you cannot say that they will not have it again. I know a man who was 65 years of age. In taking the history I found that he had had tuberculosis of the bladder at the age of 15 or 16 years; then tuberculosis of the lungs, and he had recovered; at the time he came to me he had tuberculosis of the kidney, so you cannot say for certain that you have placed these individuals beyond the possibility of recurrence.

NEURASTHENIA IN CHILDHOOD.*

By HUBERT N. ROWELL, M. D., Berkeley.

WE ARE indebted to the late Dr. George M. Beard for the first comprehensive description of this disease, which he presented some twenty-five years ago. In so doing he adduced nothing original, and nothing which had not been observed by others decades before; but, grouping an array of nervous phenomena into one composite photograph he introduced into our nosology the term neurasthenia in lieu of what had formerly been known as nervous prostration or nervous exhaustion.

Since writing a thesis upon this subject some thirteen years ago I have been astonished at the number of young people from 10 to 15 years of age who suffer from this disease. Some neurologists, as Kraft-Ebing, have boldly denied that neurasthenia ever occurs in children, while Emminghaus and Sachs, with others in our own country, record numerous instances in which they have diagnosed and treated the ailment. At all events, in the United States its presence cannot be denied. It seldom, if ever, appears under 10 years of age, but from 10 to 15 years is a period in the child's life during which nearly all the recorded cases have been noted. In its production heredity plays an important role. Neuropathic or dissipated parents beget children with nervous taint. This is amply verified by reference to the statistics of our homes for feeble-minded children and hospitals for the insane. Careful inquiry into the mental condition of mothers while pregnant frequently explains nervous disease in the offspring. It is within the experience of every practitioner that mothers perplexed by domestic infelicities or financial worries have been noted to sometimes bring forth children of gloomy or petulant, worrisome disposition.

Malnutrition and marasmus in infant life are, of course, productive of depletion in nervous energy and irritability of the nerve centers. Masturbation, sudden and severe fright (as from fire, brutal punishment, rape, etc.) have also been found causative factors. Constitutional diseases, as nephritis, rheumatism, rachitis and pernicious anemia, should not be overlooked, while errors of refraction, notably astigmatism, serve likewise as causes. Traumatism, as from concussion of the spine, has been known to produce symptoms of neurasthenic type. I at one time observed the case of a boy in whom marked neurasthenic symptoms followed, some three months, a fall upon the coccyx from a moving car. Precocious children, urged on to scholastic distinction by overzealous parents, children who are indulged in leading the strenuous society life, who are veritable dolls of fashion, encouraged in keeping late hours and enjoying all the accessories appertaining to high social station furnish the great class from which we gather our juvenile neurasthenics.

Impaired digestion and diminished elimination are the equivalents of impaired muscular and nervous tone. Children of no nationality are immune, although in my own experience those of Jewish parentage have predominated. Beard, in his work on "American Nervousness," claims that our own countrymen are especially susceptible, and attributes the fact to the fast mode of living among the American people.

The symptoms of neurasthenia are so numerous and varied that no classic picture can be portrayed. In fact, the multitude of nervous phenomena which one patient may describe may alone so bewilder us that we are tempted to ridicule the entire complaint and dismiss the patient with the feeling that he is either shamming or is hysterical or mentally unbalanced. Indeed, neurasthenia is in itself a compendium of nervous symptoms. Among the most prominent symptoms is insomnia, usually of that type wherein the patient lies awake with disinclination to close the eyes. Vertigo, with momentary unconsciousness, is a common symptom, with an accompanying staggering gait. For example, the patient crossing the street alone has in view a certain objective point, as a telegraph pole or store door, starts out bravely enough at an ordinary pace, when vertigo occurs, the gait is quickened to almost a trot, and he lands at the opposite side dizzy, bewildered and with rapidly beating heart. Such patients never fall, but the very fear of falling induces them to hurry; in a few moments they may repeat the walk accompanied by someone, and without any nervous sensations. This constitutes the symptoms known as agoraphobia (the fear of open places and the fear of being unaccompanied). The former obtains also in being left alone in a large, open place, as a public square. I have under care at present a child who, in looking up at the top of a church spire or tall building, intuitively grasps at something near, in her fear of falling. This fear of falling is, moreover, noted in those unable to look down from any great elevation.

The desire for solitude is rarely, if ever, found in neurasthenics. Upon the contrary, the patient craves company, no matter whom it may be, in his aversion to being left alone. The neurasthenic youth may be found walking closely behind or in front of any stranger or acquaintance, lest something may befall him when no one is near at hand to assist him.

Then there is the fear of crowded assemblages in which it is punishment for the patient to sit in church or theater, unless it be near the door, through which he can escape if a "nervous attack" comes on. Another phase of neurasthenia is characterized by a fear of being alone in an inclosed space, as a narrow room. This symptom is known as claustrophobia. One interesting patient, otherwise of sound mind, had a constant fear of contaminating her hands, insisting upon repeated ablutions after touching a book or grasping a doorknob or shaking hands. I well remember a girl to whom certain figures, as threes

*Read at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April 19-21, 1904.

and eights, possessed an evil significance, as did the colors of green and yellow. She invariably avoided so much as the mention of them, and disliked to hear their names.

Such a galaxy of symptoms, together with those common in gastro-intestinal derangement, drive the patient to the physician or cause him to make the home unhappy by constant reference to them. Precocious, usually anemic—if boys, frequently masturbators with long or adherent prepuce, often spoiled by indulgent and oversympathetic parents, they present themselves miniature nervous wrecks, who, if neglected, later become burdens to themselves and their families and fit material for the sanatorium or asylum. They are found to complain of a sensation of bandlike constriction about the head, this being so marked in one girl that she always carried with her a menthol pencil with which to rub the forehead for the cooling effect. She, with others similarly afflicted, was unable to concentrate her attention upon any given subject, no matter how agreeable to her. She was self-conscious, irritable and suspicious, and ever complained of the constant fatigue which invariably accompanies neurasthenia.

Of the pathology of neurasthenia we know comparatively little. Hodge has noticed actual loss of substance in the protoplasmic cells. We know that it is due primarily to impaired metabolism, and secondarily to autointoxication. Waste products accumulate by reason of faulty metabolism, and autointoxication results, partially destroying the structure of the cell.

Diagnosis.—Admitting that neurasthenia is frequently observed associated with other nervous disorders, we can do no better than to appropriate the table of Professor Anders in the matter of diagnosis, in which he differentiates the symptoms of neurasthenia from those of hysteria, the latter being the only disease easily confused with neurasthenia.

Hysteria.	Neurasthenia.
By nature a psycho-neurosis.	A neurosis often with a pronounced psychical element.
Occurs in those presenting marked hereditary taint.	Occurs as result of nervetire, overwork, etc., individuals not necessarily with hereditary taint.
Onset frequently abrupt.	Onset always gradual.
Clicinal features dependent on excess of nervous energy.	Characterized by notable lack or insufficiency of nerve force.
Presents stigmata as paralysis and anesthesia, in most cases.	These are absent.
Sometimes accompanied by convulsions and seizures.	These never occur.
Neuralgic attacks infrequent or absent.	Neuralgic attacks are common.
Insomnia not marked.	Insomnia is very common.

In the diagnosis of neurasthenia, fatigue or nerve tire is to be considered its cardinal symptom.

Treatment.—Neurasthenia is a curable condition, although its duration varies according to the nervous irritability of the patient afflicted. The prime requisite in its successful treatment is rest, mental and physical. Isolation from friends is indispensable. Misapplied sympathy has prolonged the cure of many a patient. The child should be under the care of an intelligent, firm but pleasant nurse, and no other person should be permitted to interfere. She should occupy the same room with the child, and under no circumstances should a light be permitted to burn at night. Much depends upon the personality of the nurse. While she should be discerning, and even analytical in her consideration of the multitude of symptoms as the child complains of them, she should lead it to constantly believe that they are daily improving and disappearing.

Children seldom sham concerning their ailments, and no case, however complex or tedious in its presentation of symptoms, should be lightly passed over or ignored. Above all ridicule must be avoided. The nervous child is exceedingly hypersensitive, and its many complaints seem to it real and momentous. In severe cases absolute rest in bed is necessary. The nurse may read to her patient from such books as shall be suggested by the physician, and discuss only pleasant topics. Massage, scientifically applied, is of great importance and benefit. This should be practiced half an hour in the forenoon and before sleep time. As much sleep as can be obtained during the twenty-four hours is desirable. The employment of hypnotics or sedatives is to be discountenanced as far as possible, and will rarely be found necessary. When needed, none will be found to surpass gelsemium in small doses of the tincture.

Hydrotherapy is a useful and necessary adjunct in the treatment of neurasthenia. This may be commenced as sponge baths at a temperature of 100 degrees. Later the cold pack, or, better, the needle bath will be found serviceable. Sudden shocks of cold must be avoided. The diet is to be regulated in accordance with the condition of the child's stomach. For the first week milk should constitute the sole article of diet. A child of 10 years should be fed from one to one and one-half quarts of fresh milk during the twenty-four hours, and should be fed once or twice during the night, if awake. Later a more general diet should be allowed, gradually increasing, until three hearty meals are taken during the day. Forced feeding has proved of benefit. Eggs, fresh meats and fruits are to be given freely, with milk and water as the sole articles of drink. For constipation nothing compares with the saline waters of Vichy and Carlsbad.

After six or eight weeks of rest the child should be permitted to sit up a little each day, say half an hour at first, gradually lengthening the period, and, above all, never allowing the patient to become in the least fatigued. When in the hospital I have the child moved for an hour about the grounds in a wheel chair or put for a time each day in the solarium. When able to walk about he should invariably be accompanied by the nurse, especially during his first few trips upon the street. The duty of the nurse here is to restore lost confidence and to convince the patient that he is cured, and that he is self-sufficient.

Except appropriate laxatives, no medicines are to be administered until the period of rest is about at an end. At that time a suitable tonic will be found helpful, and also of benefit because of the psychic effect. Two drugs usually suffice, viz.; strychnin and arsenic. The latter is well borne by children, and is best administered as Fowler's solution in doses increasing gradually from two to twenty drops, well diluted, three times a day, always following meals. When the full physiological effect of arsenic is observed the drug is temporarily withdrawn, to be resumed in the minimum dose.

This treatment may be continued for months at a time with good results. Strychnin phosphate, in the dose of one-sixtieth grain, t. i. d., or as an elixir in combination with iron, may be found very useful. Electricity may be employed with advantage. When used, the galvanic current produces better results than either the static or faradic. Rest, pleasant surroundings, moral suasion, forced feeding and, above all, *encouragement*, are the fundamental principles of the successful treatment of this annoying and tedious complaint.

[For discussion see JOURNAL, May, page 160.]

For complete obscurity of purpose there is no organ in the body that surpasses, in our present state of knowledge, the carotid gland. The sum total of information concerning its function may be considered as zero. Concerning its structure we are much better informed, thanks particularly to Marchand.—*Journal A. M. A.*

TUMORS OF THE KIDNEY—WITH REPORTED CASES.*

By HARRY B. REYNOLDS, M. D., San Francisco.

IN PRESENTING for your consideration a paper on renal tumors, it is not my purpose to bore you with a mere rearrangement of text-book facts, nor to weary you with an exhaustive monograph on this broad and interesting branch of surgery. I purpose rather to give a brief review of symptomatology and diagnostic measures, followed by a short discussion emphasizing such points as have been forcibly impressed upon me by experience with kidney tumors in general, and two cases in particular.

And let me say that my remarks are from the viewpoint of the general surgeon rather than the specialist, for I have neither the temerity nor the presumption to address as a specialist the genito-urinary section, worthily represented as it is on the Pacific Coast by men whose names are synonyms for professional and scinetific excellence.

The kidney substance may be attacked by any form of solid or cystic growth. But our interest centers about those tumors which constitute by far the greatest number of these cases, viz., cancer; lipoma, fibroma, etc., are rarely seen. Our consideration, then, will be confined to cancer and cysts. Cancer of the kidney, using the term comprehensively as including all malignant growths, may be one of four forms, carcinoma, hypernephroma or Grawitz tumor, adenoma and sarcoma. With their pathology we are not concerned. Nor have we time to enter into the minutæ of their symptoms. Clinically they are associated with three typical signs, hematuria, pain and tumor. Of these three, hematuria is of the greatest significance clinically and surgically, for this is the one symptom which should lead to the discovery of the malignant growth at a time when operation is most indicated. The hematuria is total, which, with its microscopic appearance and absence of bladder symptoms, stamps it as of renal origin. The bleeding is spontaneous. Its onset may occur while the patient lies quietly in bed. It is not accompanied by pain, as a rule, though fibrin masses may set up a colic in their passage of the ureter. It is intermittent, beginning quietly, lasting a few days, and suddenly ceasing. There are usually repeated attacks separated by intervals of varying length. Bleeding occurs in 70 to 80 per cent of all cases, and is the first symptom noticed in about one-half. When blood is found, it is of inestimable value, in that it leads to investigation, with the consequent discovery of the second cardinal symptom, tumor.

Tumor is present in nearly all cases, though it may not be discovered because of the absence of subjective symptoms indicating disease. It is the first symptom noticed in 20 per cent of the patients. When the tumor is small or is on the upper pole of the kidney it cannot be felt. To detect a growth in its early stages requires the most delicate touch and repeated examinations, as well as a familiarity with the various methods of renal palpation. Ordinary bimanual lumbar examination suffices in tumors of some size or on the lower pole. When the organ is generally enlarged by an internal growth the method of ballottement of Guyon is said to be the most efficient. Israel's bimanual examination, in the modified later Sims position, especially if conducted under immersion in a hot bath, gives the greatest relaxation of the abdominal walls, and is the most generally useful of the various methods.

Taken in conjunction with bleeding, the source of the tumor is plain. When occurring alone, it may be confused with other tumors of this region. It is recognized by its mobility with respiration and its lumbar contact. There is an area of tympanites between the tumor and liver, and in a minority of cases a second area of resonance corresponding to the cross colon.

Pain is only an occasional symptom. When present it is of two possible forms, viz., a colicy pain caused by the passage of clots through the ureter, or an indefinite dull pain in the side.

The urinary examination in tumor cases is usually negative. There is occasionally albumin, but the majority of patients present no changes further than the occasional bleeding.

Pressure symptoms occur in the later stages. The most interesting of these conditions is the symptomatic varicocele. This subject has been much discussed, but is of clinical significance only when it develops rapidly, and is bilateral. Various theories have been advanced in explanation of the phenomenon, but that of Legueu seems to correspond best with the facts. He considers the varicocele as an indication not so much of the tumor itself as of a glandular extension, the mass of enlarged glands at the hilum obstructing the return circulation. It is, therefore, in his opinion, only of value as a sign of inoperability.

The above symptomatology is well recognized by every intelligent practitioner. In the matter of diagnosis, however, the same is unfortunately not true. This is due in part to inability to interpret the symptoms, and partly to lack of experience in the methods of eliciting the physical signs, while with some men there is noticed a lack of appreciation of responsibility and a negligence in following the symptoms elicited to their ultimate significance. For example: How many general practitioners are sufficiently skilled in renal palpation to detect a tumor in its distinctly operable stage? Consider for a moment the remarkable ability of Israel, who has given an accurate ante-operative description of the form and situation of a tumor the size of a cherry. We are overwhelmed with chagrin at the vast chasm which separates such erudition from the ignorance and carelessness of the man who fails to discover a tumor until it has grown to the size of a child's head, and has long since passed the stage of operability. To be sure, this contrast is unwarranted, for not every surgeon can be an Israel; yet it serves to drive home the fact of the inexcusability of a failure to use all known clinical methods to discover the origin of every case of hematuria, no matter how transient or seemingly trivial.

And right here lies another pitfall into which the careless surgeon falls. Hematuria, from the frequency of its occurrence, the manifold possibilities of its origin, the usually trivial significance, is not given its due consideration. Moreover, it is in the very apparent insignificance, in its painlessness, in its spontaneity and short duration that the danger lies. For it is these cases that are the most treacherous, and that frequently prove to be the first signs of malignant renal disease. How true it is that in renal sarcoma of children the first attack of hematuria has been seen by the family physician and dismissed with orders to remain in bed and adhere to a milk diet. Under these directions the bleeding ceases, and the physician is relieved to have cured the trouble so easily. The malignant tumor, at that time operable, goes on, steadily, painlessly, without further hemorrhages, until it passes the possibility of surgical help.

We hear on all sides the plea of the surgeon for early diagnosis in gastric carcinoma. Physicians are thoroughly alive to the necessity for radical measures in every suspicious condition of the breast. And yet we constantly see cases of obscure and repeated hematuria which have never had the benefit of a cystoscopy, an examination under anesthesia, or even the very simple and useful expedient of palpation during immersion in a hot bath.

Cystoscopy is not a difficult procedure. To be-

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come expert requires experience with a large number of cases; but to master the technic, to become familiar with the general findings, even to examine and catheterize the ureters, is within the reach of any practitioner who is willing to devote a little time and study to the subject. No conscientious physician having in his care a patient with suspected brain tumor would neglect to make early and repeated ophthalmoscopic examination of the eye ground. And yet what could be more striking than the analogy afforded between this method of examination and the procedure of cystoscopy in suspected renal tumors, which procedure is as easy, and fully as reliable, as an examination of the eye ground. There is scarcely a gentleman in the profession who would not resort to immediate gastric analysis in suspected carcinoma of the stomach; and yet the clinical significance of the findings is not to be compared with the information obtained by seeing through the cystoscope clear urine escape from one ureter while its fellow jets a bloody stream.

While it is reasonably simple in a majority of cases to diagnose a kidney tumor, it is not easy to say what form of growth we have to deal with. In children it is reasonable to say, on the doctrine of probabilities, that the renal mass is a sarcoma. In adults about 30 per cent of all kidney growths are sarcoma, about 20 per cent are carcinoma, 15 per cent are hypernephroma, while the rest are adenoma or benign growths. Before 40 sarcoma is most probable. After this age the chances favor carcinoma, or Grawitz tumors. If distant metastasis is present, especially if of venous origin, the Grawitz tumor is probable, particularly if hematuria has been a prominent symptom. The diagnosis between carcinoma and Grawitz tumors cannot be absolutely made. And right here let me pause to insist on the frequency of these Grawitz tumors, which has been so forcibly brought before the professional mind in California in a late paper by Dr. Moffit, and accentuated by cases cited by Dr. Jellinek. The same fact is also borne out by the statistics of Albarran and of Hoche, who say that 15 per cent of renal tumors are of this variety.

Apropos of tumors of the kidney substance, I wish to briefly report a case. I observed this patient while house surgeon at St. Luke's Hospital, New York, on the service of Charles L. Gibson, through whose courtesy I am enabled to report it.

Mr. B., a man of 50, apparently in good general condition except for a moderate anemia, was operated on for hemorrhoids and fistula. On the second day his temperature was 104.8°, and he was slightly delirious. He cried out at intervals, though suffering no pain. A fever averaging 101° continued, though the wound ran the usual course. He became unusually weak, and his anemia rapidly increased. A week after operation the hemaglobin was 45 per cent. The urine, at first negative, showed a heavy albumin test. The chief interest centered in the blood count. Repeated examinations showed a marked leukocytosis, an excess of small lymphocytes, a progressive anemia and reduced red cells. The last blood count taken gave a hemaglobin of 25 per cent, r. b. c. 790,000, leukocytes 16,000, of which 60 per cent were small lymphocytes. Three weeks after operation a tumor was first palpable in the left hypochondriac region. It rapidly increased in size. At no time was it painful or tender, and never in its course were urinary symptoms present other than the albuminuria. Death occurred at the end of five weeks, and the autopsy showed a large, irregular, soft, whitish sarcoma of the kidney, with general sarcomatosis of the retro-peritoneal glands.

This case illustrates the group of malignant tumors of the kidney, and yet presents many peculiar features. Only one of the cardinal symptoms was present, viz., tumor. Moreover, the blood condition was such as to indicate that the renal sarcoma was not a primary tumor, but rather a general lymphosarcomatosis, in which the kidney was the seat of the largest sarcoma growth. In its blood changes the case shows a distinct analogy to certain forms of acute lymphatic leukemia, and it is not at all certain in my mind how the case should be classed.

Primary tumors of the renal pelvis are extremely rare. Growths originating in the kidney proper may, by extension or ulceration, involve the calices; but a tumor arising primarily from the pelvis is of decidedly infrequent occurrence. Albarran, writing in 1898, gathers together only 35 instances, of which three were his own patients. Of this number, 10 were carcinoma, 16 papilloma, and but four were sarcoma. The pelvis alone may be attacked, though it is frequent for the tumor to spread by extension or implantation until part or all of the ureter is involved.

The clinical polymorphism of these growths and their close resemblance to kidney tumors renders diagnosis difficult, as shown by the fact that only Israel and Albarran have made absolute preoperative diagnoses. In the character of the hematuria, the absence of pain, the normal character of the urine, the presence of tumor, etc., they so clearly resemble renal growths as to make the diagnosis of the latter very natural, particularly in view of the rarity of the pelvic growths. Certain conditions, however, and especially the association of certain symptoms, should lead to absolute diagnosis. Thus if the tumor can be made out to be a hydronephrosis or a hematonephrosis, one should strongly suspect a growth of this variety. Certain clinical pictures should lead to investigation along this line. Thus, if the hematonephrosis is established without other symptoms, if the signs of renal tumor are associated with hematonephrosis, as in the case I shall shortly report, if, in renal retention, the cystoscope discovers papillomatous tufts extending from the ureter, then the condition in question can be diagnosed almost with certainty. Nephrectomy is the surgical remedy, for while the mortality in these cases is very high, conservative methods are equally fatal because of malignant cachexia and progressive anemia from bleeding into the sac.

The following interesting case was under my care in the wards of the San Francisco Polyclinic, service of Dr. Bazet:

H. C., male, 66, widower, born in Ireland, laborer, no preceding history in any way relevant to the present trouble. About a year before admission he suffered with dyspepsia and eructation of gas. Soon thereafter he noticed an increased frequency of urination, which frequency was rather spasmodic than constant. While at times only rising from bed once or twice during the night, at others he would urinate several times, and fill a chamber before morning. About nine months before applying for relief he first noticed the increased size of his abdomen. This steadily progressed until admission to the hospital. After the appearance of the tumor he passed, on several occasions, urine of a dark or almost black color. He then began to lose flesh and strength. At no time did he suffer from pain.

Physical examination, December 1, 1903. Man of medium frame, poorly nourished. General appearance of a man thin by nature. Was not cachetic, but resembled the meager facies of a patient with a large ovarian cyst. Skin greasy and pale. Lungs negative. Heart showed a distinct hemic murmur. Pulse, 80; slight tension; regular in rhythm and force. Some arterio-sclerosis. The abdomen was immensely distended, resembling a pregnancy at term. Wall thin and tense, umbilicus protuberant. Palpation showed a large mass filling the whole abdomen, extending upward beneath the left costal border and into the left flank, passing downward below the pelvic brim and well over beyond the median line of the body. The mass was tense, apparently thin walled and transmitted a fluid wave with great delicacy. It was everywhere perfectly smooth, except for a mass just above the symphysis feeling like a loop of adherent bowel. Percussion showed dullness throughout the above limits extending without interruption to the middorsal line. Across the summit of the cyst the colon could be plainly felt as a firm fleshy band which, on inflation by rectum, gave a tympanitic note. The extremities were thin and flabby. There were glands in both axillæ and one in the right groin. The scrotum was pendulous and the seat of a moderate double varicocele. Urine was pale yellow, sp. gr. 1,020; no albumin; no blood; no casts. A specimen passed after prolonged manipulation of the tumor showed a heavy sediment of red and white blood cells which were degenerated and disintegrated.

Blood examination showed hemaglobin 55 per cent. Red blood cells, 4,300,000; white cells, 13,000, of which 83 per cent were polymorphonuclear. A quantitative record of the urine showed no variation from the normal. Repeated blood counts showed a progressive increase in the anemia and fall in red cells.

Cystoscopy with the Albarran instrument, and urinary

segregation with the Cathelin segregator both were tried, and failed, the former from persistent bleeding from varicose veins in the bladder, and the latter from the pressure of the immense cyst, which so distorted the bladder as to make segregation impracticable. The cyst was tapped in the lumbar region, and a dark-colored fluid drawn off which showed traces of urea, albumin in large quantities, and a heavy sediment of red and white blood cells, which in their state of disintegration were identical with those found in the urine.

To recapitulate: We had a history of a cystic tumor of nine months' duration entirely filling up the lumbro-vertebral fossa, apparently of retro-peritoneal origin, accompanied by periodic attacks of polyuria and hematuria, causing a moderate cachexia and decided and progressive anemia, and aspiration of which showed fluid contents containing urea and blood products. This was the clinical picture of a hemato-hydronephrosis. The obstruction could be from one of two conditions. One of greater experience in renal surgery might have made the diagnosis from the facts. I could do no better than make a tentative diagnosis by a process of elimination. The patient came to operation then with the possibilities lying between a papilloma of the renal pelvis obstructing the ureter, and a cancer of the kidney proper pressing upon the ureter. In either case operation was indicated, though the chances of successful removal were small. An incision of 15 cm. was made 2 cm. above the ilium in such a direction as to be easily enlarged posteriorly into the angle formed by the erector spinæ and the twelfth rib, or anteriorly toward the median line. The cyst was then punctured with a trocar, and fourteen pints of dark, syrupy, bloody fluid removed. The cyst being collapsed, palpation showed the absence of an extensive tumor or large glandular enlargement. I therefore determined to remove the sac. The wound was enlarged for the usual oblique lumbar nephrectomy. The cyst wall was found adherent throughout its whole surface, and separation was consequently tedious, and progressed inch by inch. The outer layer of mesocolon, then the colon itself, and finally the inner vascular mesocolic layer were in turn separated. The pedicle was finally reached and ligated, the ureter being tied, cut and cauterized. Throughout the operation no kidney tissue could be recognized as such. The peritoneal cavity was opened once, but the rent was easily remedied. But little hemorrhage was encountered, and was easily controlled. A Mikulicz tampon was placed in the cavity, and the two ends of the wound closed to the packing. The patient returned to the ward in fairly good condition. For two days he did unexpectedly well, passed sufficient quantity of urine, and maintained a favorable pulse and temperature. On the third day, however, he developed a hypostatic pneumonia, which was obstinate to treatment, and resulted in the death of the patient on the fifth day. The pneumonia was of a purely mechanical type, due to the feeble circulation in a patient nearly 70 years old, of low vitality, and with markedly hydremic blood, but superinduced, of course, by the severity of the operation.

At autopsy the operation site was in excellent condition, with no hemorrhage or sepsis, and a firm pedicle. The cyst proved to be a dilated pelvis, due to obstruction by a tumor. The growth was a pure papilloma the size of a tomato, its base arising near the orifice of the ureter, obstructing the outflow of urinary secretion by the extension of a papillomatous process into the lumen of the duct.

I hope this hurried and brief review of symptomatology and diagnosis of renal tumors, with a report of two specific cases, will serve to emphasize certain points which I have endeavored especially to insist upon. To summarize:

1. It is fully as essential to recognize and diagnose renal tumors in their early stages as in cancer of the stomach and breast.

2. Every surgeon should, by constant practice, endeavor to become so skilled in abdominal examination and so familiar with the various methods of renal palpation as to be able to detect small kidney growths at a time when operation promises greatest chances of cure.

3. Cystoscopy should become more generally familiar to practitioners at large.

4. Hematuria as a symptom should never be looked upon as a trivial circumstance. The more transient, the more spontaneous, the more painless is a hematuria, in short the less its association with other symptoms, and the more trivial and negligible it appears, just in that proportion is it more apt to be the first indication of malignant renal tumor.

5. Obscure hematuria, when found to be referable to the kidneys, should be followed to its ultimate significance even to the extreme resort of exploratory nephrotomy.

THE SURGICAL TREATMENT OF CHRONIC TONSILLITIS.*

By J. A. BLACK, M. D., San Francisco.

FOR MANY years this subject would cover but a small space on paper, as it was considered that the surgeon had done all that was required of him when, by means of a tonsillotome, he had removed what showed of an hypertrophied tonsil, and probably with it a good portion of the anterior or posterior pillars, creating so much of an after-disturbance in the throat that no singer or public speaker would submit to removal of the tonsils for fear of a total or partial loss of the speaking or singing voice.

Examine the stumps of long-since-removed tonsils and note the scar tissue in adjacent mucous membranes, with what is left of the old tonsil still adherent to other structures of the throat, to be pulled and hauled hither and thither by every muscular action in tone production, and you will readily understand why I have chosen to take up this subject for discussion, especially before an association of this character, where so many general surgeons and practitioners are gathered. No man present but deems, or at some time in his career has deemed, it a simple thing to remove hypertrophied tonsils, and with a great deal of satisfaction to himself and to his clientele; but we who follow up this work and see the after effects and lack of effects can but hope that the day has come, or will come, when this will be left to hands that deal more thoroughly with cause and effect, with work and results.

Chronic tonsillitis can be put under a number of headings; but to get at its treatment I choose to note two varieties, lacunar and true hypertrophic. The first, giving the greatest variety of disturbances and taxing the patience of both patient and surgeon to relieve. In this condition the tonsil may or may not be enlarged. Chronic lacunar or follicular tonsillitis is characterized by the formation of plugs of secretion in the crypt of chronically inflamed tonsils. These plugs are soft, cheesy masses usually about the size of rice kernels. They are white or yellowish-white in color, and have a particularly offensive odor. They consist of material discharged from the tonsil crypt, and are made up of leucocytes, epithelium, chalk, mucus and the various mouth bacteria. The only chronic condition to be confounded is, as you know, mycosis of the tonsil, in which the plugs are more dense, and project beyond the surface of the tonsil. These spurs are removed with greater difficulty, and on examination microscopically are found to consist of leptothrix or some other form of mycotic growth of rapid development. With this form of chronic tonsillitis (lacunar), instead of hypertrophies of the tonsil, there may be a considerable degree of atrophy; in fact, without pulling the pillars forward, it is frequently impossible to discover the crypt when making the pharyngeal examination. These crypts have very little tonsilar tissue about them, and often in tonsils of much larger size the offending crypt is not found until the pillar is drawn forward. The number of crypts that are inflamed or obstructed varies greatly; in large, ragged tonsils the gland is often filled with numerous plugs; small tonsils may have but one or two obstructed crypts. The large tonsils with numerous crypts do not often produce so unpleasant or so marked symptoms as those with less secretion, especially if the crypts which are giving trouble are so located that the secretion is not easily expressed from its bed by the ordinary movements of the throat muscles. The larger tonsils, unless during acute inflammation, give merely a feeling of fullness of the throat, while the closed crypts of the atrophied or small tonsils cause pain in the throat, extending to the ear or to the chest, pain externally in the cervical

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region, fatigue of the muscles of the neck, and some complain of severe neuralgia and various other indefinite reflex phenomena.

These conditions are, of course, exaggerated by attacks of scarlet fever, diphtheria or pus infection, and are consequently more often found at that time of life when these attacks most abound, youth and early adolescence. At such times inflammatory adhesions form between the tonsils and pillars and keep up constant irritation and low grades of inflammation that are not relieved by treatment until the patient falls into the hands of the right man, the pillars are separated and the seat of disturbance attended to.

There are hundreds of instruments devised to split up the crypts in this form of tonsillitis, nor are there too many. Hardly a day passes that we do not wish we had an instrument of just a little different shape to reach some peculiarly placed or formed cavity in the tonsil. I find the easiest way to handle these cases is to:

First—Split up all adhesions between pillars and tonsils with a curved or triangular-pointed knife, the first dull at the point, the second sharp, according to the firmness of adhesion.

Second—Split through all larger lacunae with the curved knife.

Third—Remove with cold snare and tonsil punch all irregularities left behind, following this line up as long as there are any lacunae or any tonsil tissue left. This may be done at one or several sittings, according to the case or the patient's willingness to have us work.

The only painful part of this work is when the instrument comes in direct contact with the mucous membrane of the pillars or adjacent structures. Seldom is the use of cocaine necessary if the proper instrument is used or the proper effort made to work in the tonsil tissue only. Bear in mind at all times: First, the adhesions anteriorally, posteriorally and above; second, follow every lacuna or space to its origin; third, avoid bruising or cutting of mucous membrane adjacent to tonsils; fourth, have a large enough variety of instruments to choose from, that the work may be done with as little traction or twisting of tissues as possible; fifth, leave the denuded surface as smooth as possible; sixth, follow up the case long enough after operative work is completed to see that shrinkage of remaining tissue is thorough and even. Simple increase of tonsilar tissue (true hypertrophic) with more or less involvment of lacunae. This simple hypertrophy follows recurrent acute attacks.

At times the gland is pliable; at times very firm, cutting with a creaking sound, owing to increase of true connective tissue or deposits of lime salts.

For the sake of classifying the surgical work of these hypertrophied tonsils, let us divide them into classes according to age and appearances.

First—In very young children, from 1 year up, where the tissue is hypertrophied, but where there are no adhesions. Without anesthetic local or general, patient upright, being held by assistant. Grasp tonsil with valsella or tonsil forceps and remove with ordinary nasal snare. As a rule, when the snare is adjusted and drawn taut the tonsil will pop out like a peeled onion, leaving but a very small cut surface. This result is ideal. If somewhat adherent, split adhesions and then use snare. If adhesions are very strong, use tonsillotome, being careful to avoid pillars anterior and posterior.

Second—In older children proceed as above, but under anesthetic—laughing gas, ethel bromide or first stage of chloroform, if operation is short and readily accomplished; chloroform, second stage, if more prolonged and difficult. The point is to work so as to leave a stump absolutely free from attachment except at its base. If this can be done it is not necessary to completely extirpate the gland.

Third—In children, after puberty and in young adults, that is, after the period when the lymphoid tissue of the throat has served its purpose and atrophy should have taken place. The tonsil during its acute attack has been congested or inflamed and enlarged, thrust toward the median line, become adherent to pillars by inflammatory deposit and held there so there is no chance for it to protrude farther if an inflammation occurs, or recede after the inflammation has subsided. This is the form of tonsilar trouble that causes the low grade of inflammation which travels to the pharynx, eustachean tube and other adjacent structures, and is of vast importance in catarrhal inflammations of the middle ear.

Here remove all adhesions, split out all crypts and snare off protruding sections. Ten to one the remaining portion will completely withdraw from view within a very few days or a week. Once in a while a tonsil is held back so that when separated from its pillars it protrudes more in a few days. Such cases should be amputated completely by hot or cold snares, or rarely by tonsillotome.

THE EFFECTS OF TONSILLOTOMY.*

By W. B. STEPHENS, M. D., San Francisco.

THE EFFECTS of tonsillotomy naturally fall into two groups:

First—The immediate or those closely succeeding the operation, and which are for the most part transient; and

Second—The ultimate, which are more or less permanent.

Turning attention to the first group, we have to note first, hemorrhage. At least slight hemorrhage invariably follows the removal of a tonsil with a cutting instrument, usually with the cold snare, and may with the electro-cautery snare. Dangerous hemorrhage is uncommon. In 1893, Knight, in a search of the records of the Surgeon-General's office for the twenty-five years preceding this date, found thirty-one cases. Harmon Smith, in the *Laryngoscope* for February of the present year, notes fifty-four as being the total number of cases of dangerous hemorrhage appearing in literature. Six of these terminated fatally. These two citations, making allowance for unrecorded cases, show how small a proportion of the great number of tonsillotomies that are constantly being done are attended with dangerous hemorrhage.

Children are the most frequent subjects of this operation. They are less liable to dangerous hemorrhage than adults, due chiefly to the smaller amount of connective tissue in their tonsils and to the greater contractibility of the blood vessels.

The sources of hemorrhage are constitutional (hemophilia) and local: First, an anomalous position or size of the blood vessels; second, wounding the anterior pillar of the fauces or the venous plexus lying inferior to the tonsil; third, the most common source is from cutting through the body of a fibrous tonsil, the connective tissue of which holds open the lumen of the tonsilar artery, thus preventing its proper contraction and closure. Use of the bistoury has undoubtedly been the cause of many cases of hemorrhage. Fortunately, in ordinary cases this method is practically obsolete.

Methods of controlling hemorrhage: First—Keeping the patient quiet, if necessary, with opium, thus preventing an accelerated heart action. Second—Hot or cold water as a gargle or applied with a syringe; or compresses wrung out of hot water, and, with a long-handled forceps, pressed firmly against the bleeding surface; or applications of ice made in the same manner. Fainting may intervene, and the hemorrhage cease spontaneously. Fortunately my own experience is limited to instances in which the

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hemorrhage was controlled by these simple measures. Third—Of the styptics, the only one regarded with favor is the tanno-gallic acid of McKenzie. Fourth—Compression with one of the forms of tonsilar hemostat, which have a compress to fit over the tonsil stump in the throat and one for a corresponding point outside. This method is the most rational in the case of a hemophile. Under the inner compress may be placed the tanno-gallic acid. Fifth—Cauterization is at times effective. Preferably it should be done with the Paquelin cautery. Sixth—If the bleeding is limited to one point, it is possible at times to catch up the vessel with a long-handled hemostatic forceps or a tenaculum, then using tortion. Seventh—Tying up the entire stump has been ingeniously done by using the cold wire snare. Eighth—As an extreme measure the external carotid may be ligated near where it branches off from the common carotid.

From the viewpoint of the patient, pain is the most marked and immediate effect of the tonsillotomy, entailing dysphagia and dyslalia. The pain is due chiefly to the bruising of the palatal and faucial muscles. The irritation of the throat giving rise to an increased secretion of saliva and some exudation from the cut surface keeps the patient constantly swallowing or expectorating, thus causing the damaged muscles to be thrown into a state of unusual activity. The stump of the tonsil, according to Shurley, may be very painful; ordinarily it is more or less insensitive. Pain is greater following the use of the snare and when the tonsils are adherent to the pillars of the fauces, these adhesions having to be broken up previous to removal. The removal of the soft lympboid non-adherent tonsil of early childhood with the tonsillotome produces the minimum of pain, these little folks at times not complaining at all subsequent to the operation. Pain usually lasts only a few hours, but in the case of older children and adults may persist for three or four days. Nothing seems to relieve the pain except the internal administration of anodynes.

Edema of the soft palate and fauces is occasionally seen, coming on the day succeeding the operation and lasting from two to four days. This is apt to be in proportion to the amount of damage to the surrounding tissue.

In the majority of cases there is found on the second day a membrane over the cut surface. This I consider to be chiefly a superficial necrosis, due to pressure. It is at a minimum in the soft tonsil of early childhood, at a maximum in adults, especially if a patient is not in good health or has a foul mouth; in this instance being partly an infection. Shurley speaks of this membrane as seen occasionally. My experience is that it is the rule.

Infection of the wound is rare, antiseptic gargles usually controlling it. The formation of a phlegmon is occasionally reported. This would require incision. If the mouth and teeth are first cleansed, and care taken that the instruments are sterile, there will seldom be trouble in this direction.

Asphyxia from blood clot in the larynx has been reported, but it is rare. Shock is not apt to be met with except in hypersensitive adults or older children.

The Ultimate Effects.—With the injuries and their resulting deformities the ultimate or permanent effects are reached. Slight injuries to the base of the tongue or to the anterior pillars may heal readily without ill effects and without deformity, but the amount of damage which may be inflicted upon the throat by unskilled hands, in what is ordinarily termed "so simple an operation" is astounding. One physician who so regarded the operation, and who stated that even a butcher could remove the tonsils, at the end of an hour had not succeeded in removing one tonsil, but had succeeded in so damaging the throat that a month later the uvula, the pillars of the fauces and the tonsil on the right side presented one matted mass. In another instance a portion of the tonsil had been extirpated but the uvula was gone, and tonsil tissue was found in the soft palate almost to the median line. This normally thin, flexible, vibratile membrane was converted into a thick, inelastic cicatrix which did not fully prevent the entrance of food into the rhino-pharnyx. There was also a permanent impairment of the voice and a lack of perfect nasal respiration.

The removal of the tonsil is not always an easy operation. The tonsil, which has been the seat of repeated inflammations or of repeated attacks of quinsy, may, by reason of adhesions, be very difficult of removal. Only a very small portion of the gland may be apparent upon inspection, the larger portion being concealed by the closely adherent pillars. Or again, this tonsil may extend very low down in the throat in an inaccessible place. In these instances there may be no abnormality in the attachment of the tonsil, but an exceedingly hypersensitive throat may make quick and accurate work an essential. In any of these instances only the man who is accustomed to working in the throat, and who is skilled, can expect to do a tonsillotomy without inflicting damage. I would ask the general surgeon to at least be discriminating in the tonsils he attempts to remove. All damage inflicted at this operation is not to be laid at the door of the general surgeon. The specialist is not infallible, and even he should be urged to study each case.

In this connection the matter of thoroughness of removal should be considered. My experience speaks for a thorough removal; what I do most frequently is an enucleation. This point in turn involves the question as to whether the tonsils have any function. Some claim that they act as guardians, arresting the entrance of deleterious bacteria into the system. For every bacterium that one of these diseased tonsils prevents entering the system it probably pours thousands from its own foul lacunæ. Whilst the biologist is still busy trying to prove the tonsils to be the seat of some secretion that is necessary to the physical economy, the most of us have clinically settled the question by removing the tonsils and finding that our patients not only get along without them, but are the better for their removal. The fibrous tonsils have very little of the parenchyma left, and, like the cirrhotic liver, the glandular elements are surrounded by connective tissue which gradually replaces them and thus destroys their function. Thus it is with the tonsils. If they had any function, the pathological process has, or is, destroying it. Chronic lacunar inflammation in the soft tonsils accomplishes the same end in a different manner. Thus their function having been destroyed these tonsils can justly be looked upon as foreign bodies. As such there can be no valid objection to their entire removal. I favor the removal of only diseased tonsils, but advocate their removal as thoroughly as possible. If you remove only a portion of the tonsil of a child of lymphatic temperament, in the majority of cases you do not give that child permanent relief, and either you, or quite probably someone else, has to repeat the operation. I have seen, in a few instances, the reproduction of a tonsil fully as large as half a walnut from a small bit of tissue left in the superior fornix of the pillar of the fauces. In two or three cases I have observed four or five years subsequent to an absolute enucleation or shelling out of a tonsil a small amount of tonsil tissue in the old bed. For ten years I have used a cold wire snare in the majority of my tonsillotomies, and usually succeed in enucleating the tonsils. I have yet to see any ill results from the entire removal of the gland.

Aside from accidental deformities and their sequelæ, the permanent effects of the removal of the tonsils are all good. These good effects are to be

attributed to the removal, first of an obstruction, second of a focus of infection. The removal of the obstruction gives normal respiration and all that that stands for. The removal of an associated adenoid may contribute largely to this result. The child with a pigeon breast has the chance to have its chest rounded out into its normal form and secure the proper oxygenation of its blood. The heavy, distressing breathing, with its frequent night horrors, disappears, and the parents tell you that they get up at night, not to see if the child is choking, but to see if it is alive, as they do not hear the usual stertorous sounds. In one instance, after four years' persuasion, the parents had the tonsils of their child removed. A few days later the mother confessed that they had that night, for the first time in five or six years, not left the light burning fearing that the child might strangle.

When done early enough the short lip, the protruding upper incisor teeth and the Gothic arch may be prevented by restoring normal respiration. Likewise deforming changes in other of the facial bones may be prevented. Deglutition can be properly performed, and proper eating thus encouraged. The voice is improved. The flat, high voice is rounder and fuller, but may be lower. A dry, hacking tonsil cough disappears. Pains in the ear, due to pressure, are relieved.

These tonsils are regular incubators for countless micro-organisms, harboring anything from the leptothrix to the tubercle bacillus. These afford a perennial supply of toxines, so that in extirpating these tonsils we remove the source of a general toxemia. Frequently a cervical adenitis gradually subsides. Recurrent attacks of tonsilitis are at an end, and repeated attacks of quinsy may be stopped. The appetite becomes normal, and the stomach, being freed from the micro-organisms from above, gives proper assimilation of the ingested food.

The change of a puny, ill-nourished, anemic, pigeon-breasted youngster into a sturdy, well-nourished, robust child is too familiar an effect of tonsillotomy to need any comment. Scarcely any operation is attended with more marked and beneficial results than the removal of the tonsils and the frequently accompanying adenoid, especially in early childhood. To obtain these good effects and avoid the ill, for nearly all the ill effects are preventable, note the character of the tonsils, whether lymphoid or fibrous, and whether adherent to the pillars of the fauces or free, then choose the method best adapted to the individual case. The tonsillotome is not suited to every case, nor is the cold snare, nor the electro-cautery snare, nor the cutting forceps, nor the tonsil knife. This requires judgment and experience.

The patient should be kept quiet the rest of the day of the operation, preferably in bed, liquid food given and violent exercise interdicted for two or three days. Thus will tonsillotomy be most devoid of ill effects and of the greatest blessing to the patient.

DISCUSSION.

Dr. Kaspar Pischel, San Francisco.—In those cases where the tonsil is large enough so that a snare can be laid around it I use the electro-cautery snare, which most effectually prevents bleeding. Hardly a drop of blood appears. This I find particularly valuable with children, because it enables me to remove the adenoids at the same sitting. Regarding this question whether one should remove the three tonsils in one sitting or in two I would like you to consider the following: Let us take a child six or eight years old. If you wish to make the two operations at different times, you will have to give a general anesthetic each time, because if you remove the tonsils without an anesthetic you will not get that child into your office again. Now I ask you to consider what is more dangerous, to give the child an anesthetic once and have three surfaces exposed at the same time, or to subject the child twice to the dangers of anesthesia, and the first time have two surfaces exposed and the second time one. Besides, I think the mother has some rights which we should consider. We should not make her go through the same anxiety twice.

[For balance of discussion on the papers of Drs Black and Stephens, see JOURNAL, May, 1904.]

SOME REMARKS ON GONORRHEA IN WOMEN.*

By BEVERLY MacMONAGLE, M. D., San Francisco.

THE FACT that gonorrhea produces the most serious and profound changes in the pelvic organs cannot be too strongly insisted upon.

Its frequency is difficult to state; it varies, both in localities and in great cities, within wide limits, so that it is impossible to formulate any statement that can have any general application. The same applies to the various classes of society. It is certainly a common disease among hospital patients. In cases of pelvic peritonitis, there can be little doubt that septicemia following parturition or abortion is the chief cause, but that next in importance comes gonorrhea.

Pathology.—Little attention was paid to the subject till Noeggerath's work appeared, in 1872, in which he urged the latency, and even the incurability of gonorrhea. This important paper is referred to frequently by Sinclair, and justly so. Noeggerath was unaware of the existence of the gonococcus, but he drew attention to the great importance of neglected gonorrhea in men in relation to gonorrheal infection in women, for some of the very worst cases of acute and recurring perimetritis occurred in the wives of husbands who have been supposed to be cured of gonorrhea shortly before marriage. Noeggerath subsequently modified his views of the incurability of gonorrhea.

Another important point was brought forward by Angus Macdonald, viz.: gonorrheal infection had given rise to more or less puerperal illness. Sanger thinks such puerperal illnesses are later in their onset than in cases originating otherwise.

In 1879 Neisser discovered the gonococcus, staining the pus with a watery solution of methyl violet, and concluded that it was characteristic of the disease, and that it was a distinct organism, both functionally and morphologically; also that it occurred in masses or colonies, never in chains in the pus cells. The gonococcus appears to be easily found in acute cases, but in old standing ones of even only a few months' duration, most certainly gonorrheal in their nature, which have been under treatment, it was almost invariably impossible to discover it.

Bumm of Wuerzburg published a very important work on the pathology of gonorrheal infection, in which he proved the existence of microorganisms (diplococci) which cannot be distinguished by the individual form alone from Neisser's gonoccus, and it was not until the effect of Gram's iodo-iodid solution and washing with alcohol was discovered, which is said to fix the color (methylanilin blue in anilin water) in all microorganisms except the gonococcus, that any definite means of differentiation was known. The question now arises as to the diagnostic value of the gonococcus in a discharge. Sinclair says that "all experience goes to show that the presence of the gonococcus settles the question; it is the pathognomonic sign of the disease; but that the whole subject is in too inchoate a state to make it safe to allege that these conclusions are sufficient to satisfy the requirements of medico-legal investigation." To sum up, then, the collection of the secretion should be

*Read by title at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April, 1904.

taken from the crevix or urethra, or possibly from the orifices of Bartholin's glands; and as vaginal gonorrhea is rare, pus from this source should not be used. The particular arrangement of the diplococcus in the protoplasm of the pus cells or other elements of the fluid are characteristic, while the presence of some clinical sign or symptom may suggest the existence of comparatively recent infection.

Further light has been thrown on the question by inoculation and cultivation, and by the results of vaginal discharges of puerperal women on the eyes of new-born children; and though the cases of ophthalmia may occur in which the gonococcus cannot be found, they differ in that the discharge from such cases is not infectious, nor is it followed by the same results.

Vulvo-Vaginitis in Children.—With regard to vulvovaginitis in children, much controversy has taken place as to whether the diplococci observed can be by any means differentiated from the gonococcus, and many observers think the disease identical with the gonorrhea of adults. Robinson, in examining fifty-four cases of discharges in children under 5 years of age, found organisms in the discharges like the gonococcus in 76 per cent; but it seems difficult to believe that the percentage should be so high. The vulvo-vaginitis of children is a difficult subject of investigation, but probably gonorrheal and non-gonorrheal occur; and, as McCann points out, other diplococci simulate gonococcus (he refers to Bumm's paper), but such diplococci will liquefy gelatin, while the gonococcus will not grow on gelatin or liquefy blood-serum. The cultivation test of the gonococcus is of great value in diagnosis, and should be applied, if possible.

As regards the gonococcus itself, it is a diplococcus with a refractile envelope, generating by fission; it varies much in size, but neither form nor size are reliable guides in its recognition; ill-developed gonococci may be sometimes found. Generally, gonococci are found lying free, either in colonies or as separate and distinct diplococci, never forming chains; they may surround the pus cell or lie on its surface, but the greater number are actually contained in the pus cells, and, in both this and in the epithelial cells, cause cell destruction. Fuchsin is probably the best stain, while Grams' method is not necessarily a conclusive test. Sometimes the gonococci are few in number, or may be mixed with other organisms, or may be hidden in the deeper portion of mucosa, rendering their recognition difficult.

The chief points, besides these, in favor of the gonococcus being more or less the factor of the disease, are that gonococci exist in the pus of every untreated case at some period or other. Again, secretions free from gonococci do not cause a gonorrheal inflammation, while secretions containing gonococci, even in small quantities, will affect the mucous membrane with certainty; still one cannot say that if gonococci are not found the disease has not been gonorrheal. Cultivation and inoculation experiments tend perhaps still further to support the evidence that the gonococcus of Neisser is the cause of the disease we call gonorrhea.

Results of Gonorrhea Infection in the Female.—Generally speaking, gonorrhea is seen in the acute or chronic form. In acute cases there is generally some reddening and swelling of the vulva, with purulent discharge, and pain on micturition; but it is curious that in women little notice is often taken of urethral troubles as compared with the male, and the most serious infection of the uterus and pelvic organs may take place without the patient having noticed any discomfort from micturition. Sometimes much swelling of the vulva occurs, with great tenderness, and Bartholin's glands become infected, painful and swollen; the inguinal glands may inflame. The urethra, in well-marked cases, is thickened, swollen and tender, and pus can be squeezed from the orifice.

True Gonorrheal Vaginitis.—Much discussion has arisen on the subject of the occurrence of a true gonorrheal vaginitis, and the author agrees with Sinclair that it is an uncommon occurrence. The vagina seems to be the last portion of the genital tract, from the uterus downward, to be affected. Urethral and uterine gonorrhea may be well marked in some cases without any definite changes in the vagina. Probably the squamous epithelium of the vagina, which is very like true skin, long resists infection or processes of disease; still, in children and young females the vaginal lining is softer than in adults, while the softening and increased vascularity of pregnancy may render the surface less resistant.

McCann states that practical experience teaches us that we do meet with cases of gonorrheal vaginitis. While admitting the arguments, the author thinks its occurrence is certainly rare. With regard to the infection of the uterus, such infection is the rule, not the exception, especially that of the glands and mucous membrane of the crevix, the latter being swollen and reddened, and there is acute or chronic catarrh, accompanied with erosion; in some cases pus may be seen pouring from such a cervix. The disease produces an endometritis, and though endometritis is often caused by septic puerperal infection, the poison of gonorrhea is certainly one of the factors of its causation, and the process may extend to the fallopian tubes, ovaries and peritoneum.

The fallopian tubes are affected in acute gonorrhea without doubt, but we know little of the changes that occur; but in the more chronic cases similar changes occur to those described in "Diseases of the Fallopian Tubes," whereby the fimbriated extremities are closed, leading to dilatation and the formation of hydro and pyosalpiux.

Extension may take place, in acute cases, to the peritoneum, but a general gonorrheal peritonitis must be very rare. Generally the bowels and omentum are matted together with adhesions, as in ordinary pelvic inflammation, forming a barrier against a further extension of the process.

In its chronic forms, gonorrhea may show itself in the general ill health, persistent discharge, painful menstrual periods and pelvic distress, or even a definite attack of pelvic peritonitis with its subsequent sterility. Such cases are but too often seen in young women a year or less after marriage. In such cases the orifices of Bartholin's glands may be found inflamed, the cervix swollen, its mucosa red and accompanied with erosion; movement of the uterus causes pain, owing to the tenderness of the surrounding organs; the ovaries are frequently enlarged, tender, prolapsed, or they may be fixed by surrounding perimetritis.

The changes in the fallopian tubes in chronic gonorrheal infection are chiefly matting of the fimbriæ and closure of the abdominal ostium, and the subsequent formation of the hydro and pyosalpinx. The ovary shares in the general matting and adhesion of the pelvic viscera; perioophoritis occurs, but it is but a part of the general inflammatory process (perimetritis). Generally, the tube and ovary are closely bound together by dense adhesions; sometimes such ovaries are filled with small cysts or abscess cavities, which may form a single pus cavity; in other cases the pyosalpinx and ovarian abscess open into one another.

It is rare for such abscesses to burst into the general peritoneal cavity; but a few fatal cases have occurred. They appear to be due to definite destructive ulcerations of the tube, even though not distended. It is not to be supposed that all cases of salpingitis run to abscess or pyosalpinx. Many cases get well, and the attack runs the course of an ordinary perimetritis.

The most serious results are perhaps sterility, owing to the closure of the abdominal ostium of the tubes. Generally such sterility is relative; patients frequently have had one child. The same holds good in the sterility of prostitutes.

It is, of course, possible that the infection of the gonorrhea may take place during pregnancy, or even shortly after delivery; such cases may be severe in their results, and Sanger professes to recognize a gonorrheal puerperal fever. Sinclair and Noeggerath think that such cases recover slowly, because of the pelvic adhesions, whereas women who survive a genuine attack of puerperal sepsis soon get well.

Another point in relation to this subject is the infection of the conjunctiva of new-born infants; but not all forms of ophthalmia neonatorum are necessarily gonorrheal. Stephenson, however, found gonococci in 66 per cent of his cases. Gonorrheal rheumatism in women also occurs as a complication, with definite effusions into joints, such as the wrists or knees, and ankylosis may even occur.

As to the character of infection causing the complications of gonorrhea, it is possible, as McCann states, that we may have: (a) Pure gonorrheal infection, the result of the infection of gonococci alone; (b) mixed infection, the result of the invasion of pus organisms which have developed in the mucous surface originally attacked by the gonococci; (c) secondary infection, where the gonococci produces the complication followed later by the entrance of the pus organisms, both existing together until the gonococci die or are overgrown by the pus cocci; (d) toxic infection, where the complications may be due to the result of the absorption of toxic products produced by the gonococci or pus organisms.

With regard to latent gonorrhea, Noeggerath believes that a man is never completely cured, and that, if married, he is certain to affect his wife; such cases are better termed chronic, not latent.

Gonorrhea can, of course, be cured completely in either sex by appropriate and early treatment; but the eradication of the infection from the glands of the cervix is a most difficult matter.

THE MANUFACTURING PHARMACISTS OF THE SO-CALLED PROPRIETARY REMEDIES AND THE MEDICAL PROFESSION.*

By WILLIAM H. DUKEMAN, M. D., Los Angeles.

THE present state of the medical profession, distorted, as it is, in the interests and for the benefit of the so-called manufacturing pharmacists, is a most deplorable condition, and as a profession we should, with that true principle and dignity becoming a learned profession, place ourselves absolutely adverse to the present methods pursued by some manufacturers in using the medical profession to further their pecuniary interests. I must say "pecuniary interests," for these manufacturers are not in business for any other purpose.

The public is not asleep to the existing conditions. "The medical profession should be mindful of the nigh character of their mission and of the responsibilities they must incur in the discharge of momentous duties." The public is not slow to judge, and as things have been going, is it any wonder that the public should lose the old-time confidence in the practice of medicine as it is conducted to-day? I quote "Principles of Medical Ethics" adopted by the American Medical Association, Chapter III, Sec. 5: "It is the duty of physicians to recognize and by legitimate patronage to promote the profession of pharmacy upon the skill and efficacy of which depends the reliability of remedies." This last word *remedies* covers a broad field; perhaps it were better to have said pure drugs. This word, remedies, allows all classes of the so-called manufacturing pharmacists to enter the field on ethical lines. That their compounds may be reliable as to their ingredients, we will not discuss, but that they are reliable *remedies for the treatment of diseases*, as propounded by them, every true physician must question. The physician prescribing such compounds only places himself on the same level as any pharmacist who assumes to prescribe for the sick. The physician is here doing what the manufacturing pharmacist directs him to do, and just what the physician demands that the pharmacist shall not do. (Chapter III, Sec. 5). Our medical journals are, perhaps, the most to blame for these conditions, for they sell space in their advertising pages to promote the sale of remedies which the editors themselves would not prescribe.

Of the innumerable proprietary remedies now in the market, could we not dispense with every one, and our patients be the better off? My answer is emphatically, yes! Would not the individual who steps into the nearest drug store to purchase these remedies which he has become familiar with, through one source or another, be better off had he never taken such stuff? My answer is emphatically, yes! Then I must answer, too, in the affirmative, that every physician who is in the habit of prescribing proprietary remedies is in the wrong. And I most earnestly appeal to every physician who prescribes such remedies to ask himself these questions: Why have I allowed myself to deviate from the true principles in the treatment of diseases? And have I been conscientious and true to myself in my duties as a physician in administering such remedies to the sick?

We should never forget three things: 1, our duty to our patients; 2, our own self-respect; 3, the honor of our profession.

I beg to not offend anyone. I am aware that some of the most widely known members of the profession have unreservedly and publicly lent their names in testimonials to the good qualities of some of these remedies for the treatment of diseases, and surely these testimonials bear the semblance of "patent medicine" advertisements. Do not misunderstand me, for I am in line with original investigation, as we find it in our higher class institutions. But in our zeal to relieve human suffering, we have been too overzealous in our efforts to alleviate unpleasant and disagreeable symptoms in certain conditions which we are called upon to relieve, and in this over-zealous state we have been led astray, thoughtless of the outcome, in prescribing something prepared just to catch and fill-in this space of our weakness.

The idea of a proprietary firm dictating to a physician what and how to prescribe in certain diseases, is of itself enough to cause the public to lose confidence in our ability. From what standpoint do we treat diseases? Are we drifting in line with the "patent medicine" man? Have we forgotten our materia medica and principles of therapeutics? From the file of prescriptions in our drug stores, I am told by reliable druggists, that there are more prescriptions for proprietary remedies, etc., on file, than of pharmacopial drugs, and that the younger members of the profession take the lead in this matter. This condition of affairs, I am also informed, is rapidly on the increase. Reader, meditate for a few minutes and ask yourself what will be the result? I am only presenting to you facts. If the younger members take

**To the Editor of the* STATE JOURNAL:—This article was sent to the *Journal of the A. M. A.* for publication. The editor refused to publish it, on the grounds that it was too general in its condemnation and did not specify the particular remedies. I answered his communication, stating that it was my intent to make it general, no matter whom it hit; the guilty only could take offense. He then asked for its return and would refer it to the committee on publication. I returned it. The article was again condemned, this time by the committee on publication as well as the editor, who, in a second letter, accused me of being influenced and guided by the CALIFORNIA STATE JOURNAL. To this I replied, I think, to the satisfaction of all concerned.

Very truly yours,
W. H. DUKEMAN.

the lead in this direction, whose fault is it? Where do they receive their teachings? I pick up a medical journal and I find not only display advertisements on this line, but original articles from men of standing and influence, setting forth in glowing rhetoric, wonderful results obtained from "soneurol?" etc. Then, I am also informed that certain druggists, on the commercial lines of the department stores, dispense "soneurol" and "hypnotine," etc., from the same bottle.

Our waste baskets are filled daily with advertising matter in glowing colors of all sorts and kinds of remedies. When the traveling representatives of these houses make their quarterly rounds, calling on the doctors, whom do they most desire to see, the old, experienced, or the young physician? And where do they pile up their samples? I will repeat in plain words, the young men are not taking the lead. They may send a larger percentage of such prescriptions to the druggist, but the ones to blame are those who have influence and are of riper experience. What would our predecessors, the founders of the principles and practice of medicine say, were they to rise from their graves and voice their sentiments? Upon hearing their words I fear we would all hide our faces in shame.

A short time since I asked a highly respected member of our profession these two questions: Does the public have less confidence in the medical profession than formerly, and, if so, why? His answer was, "Yes! And the profession has brought it upon itself." It was our little conversation that caused me to write these few words, and if they will only have stimulus enough to cause others to exchange thoughts on this subject, I feel that from my humble effort in briefly calling the attention of the profession to a few of the facts, reform from this deplorable condition will soon come about. And for this purpose I would suggest that our journals, as well as individual members of our profession and our medical societies all over the land, will see a profound duty to perform to relieve the profession of the stigma upon it.

FLIES AS CARRIERS OF CONTAGION.*

By GEO. H. AIKEN, M. D., Fresno.

FOR a physician to have presented this subject to the medical profession twenty years ago would have been to invite ridicule and criticism, but thank God, we have made advancement since that time. While not claiming to advance anything new or startling, I do desire to call the attention of this convention to a subject, the importance of which has not received the serious consideration it deserves. Hence, in bringing this paper before you I shall have no excuses to offer, for as sanitarians no measure is so unimportant or method so trivial—the object of which is the lessening of human suffering and prevention of disease—as not to merit our serious attention, and enlist our best endeavors. While a vast deal of thought and labor have been devoted to the mosquito during the past few years—and deservedly so—regarding the transmission of disease to the human subject, methods of extermination, etc., yet I very much doubt if the evil consequences of this little insect will compare with those of the ordinary house-fly. I am also of the opinion that the medical profession has as yet but a very faint conception of the vast amount of mischief wrought by these apparently innocent little household companions; created for a wise and beneficent purpose perhaps, but a pest nevertheless, a menace to every household, and a source of real danger during their period of greatest activity, the summer months. A large mortality from typhoid fever and other contagious diseases can be charged up to the account of this little insect. Many simple wounds and abrasions have become infected with fatal termination through this medium.

Scores of soldiers on the battlefield have received their death warrant, not from the bullet or shell of the enemy, but from this poison-laden insect. We have recently received an authentic account of numerous deaths in and about Port Arthur from the bite of a certain red-headed fly, which feeds on the decomposing corpses scattered over the battlefield. The bite of this fly is said to be immediately fatal, and beyond the possibility of recovery. The house-fly, or species of the "musca domestica," is by nature a scavenger, its nursery the dunghill, its habitat the cottage and the mansion, with a predilection for the kitchen, dining-room and privy vault. With vulgar, if not perverted tastes, its preference for food is that of filthy, decomposing, animal and vegetable matter. While making special reference to the house-fly in this paper, it is also intended to include all other species which are carriers of contagion.

If you have watched the habits of this insect, you will have noticed how quickly the purulent sputa of the consumptive and diphtheritic is devoured, while that of the healthy subject is ignored. And herein lies the danger from this filth-devouring and contagion-carrying insect.

My attention was first directed to the dangers of contagion from flies in a practical way while inspecting dairies in my official capacity as health officer. In visiting one of these on an early summer morning I chanced to be present while the milk was being areated, and here I found something which not only opened my eyes to the dangers of contagion through the medium of flies, but was also the means of bringing about reforms in this important industry. I found the milk-house well filled with flies, and glancing at the top of the areator, which was covered with cheese cloth and formed the first strainer, I beheld fifteen or twenty flies floating about in the milk taking their morning bath. On the outside of the areator and lower rim were many more enjoying an early breakfast, while in the last strainer over the large can into which the milk was being discharged, were at least fifty more dead flies whirling about and being thoroughly washed of all filth and debris.

Consider for a moment the possibilities of contagion here; warm milk, one of the best culture mediums known for bacteria, laden with flies having previously breakfasted where and on what? Supposing they had feasted on the dejecta of a typhoid patient, the sputa of diphtheria, the desquimating debris of a scarlet fever patient or the infected wound of some animal, what might and probably would have been the result? Enough poison might have been transmitted to this milk to have infected a hundred infants or others had they partaken of it. And these possibilities have been demonstrated to my entire satisfaction during the past two years. It is needless to state that we immediately commenced a warfare against flies and sought by every means possible to protect the milk from contamination. All areators were ordered screened and thoroughly protected from flies, and later dairymen were required to use sanitary milking-pails, so-called, that is, a covering of cheese cloth placed over the top of the pail, and held in place by an outer rim, thus preventing flies and debris falling into the milk and remaining there during the period of milking.

Measured by consequences, immediate and remote, I am firmly convinced that the contamination of milk through the medium of flies is one of the most frequent and dangerous sources of contagion with which we have to deal. As a result of protecting our milk product from flies there has been a perceptible decrease in diarrheal complaints among children, the mortality has been materially reduced, the bacterial count has been much lowered, and is now as readily maintained at 50,000 per cubic centimeter as formerly at 75,000 during the summer months.

My second object lesson along these lines came from inspecting slaughter-houses. On one of my rounds of inspection I found hanging in the slaughter-

*Read before the California Public Health Association, October, 1904.

house some half dozen sheep having just been killed and dressed, and on these carcasses were flies swarming so thickly as to nearly cover the entire surface. Probably a majority of these flies, not an hour before, had been feeding on the decomposing offal and filth in the stockyard. How long this meat remained in that condition I do not know, but probably for several hours. Think of the amount of filth, fly blows and possibly contagion, that was deposited on this meat soon to be used for human consumption! As a result of this experience the board of health immediately ordered that all slaughter-houses furnishing meat for the (Fresno) market should have the same screened immediately after slaughter, and thoroughly protected from flies until placed in cold storage and sold. The butchers soon informed me that it was an excellent measure as they did not need to spend so much of their valuable time digging out fly blows!

The common practice of exposing meats in our markets and on the sidewalks to contamination of flies and germ-laden dust, is a filthy, dangerous and unsanitary practice, and should be condemned. We should profit by the experience of some European cities where they place only special samples of meat in clean, well protected show windows, while the bulk is retained in screened closets or refrigerators. All dressed meats, fowl, and game of every description should be carefully protected from contamination of flies and dust from the time of slaughter until consumed.

Flies as carriers of typhoid contagion. The attention of the profession was first specially directed to this matter by experiments made during the African and Spanish-American wars. An instructive and exhaustive report was made by Vaughn and his associates following the latter relative to the dissemination of typhoid fever in camp life. It was here proven beyond controversy, and subsequently verified by others, that the house-fly is often the medium by which this specific contagion is transmitted to the human subject.

Alice Hamilton of Chicago has given us an interesting account as to the part flies may take in the propagation of this disease. She reports as follows: "The epidemic of typhoid fever in Chicago, during July, August, September and October, 1903, was most severe in the ward which, with one thirty-sixth of the city's population had over one-seventh of all the deaths from this disease. The concentration of the epidemic in this locality cannot be explained by the contamination of the drinking water, or of food, or on the grounds of ignorance and poverty of the inhabitants, for the ward does not differ in these respects from several other parts of the city. An investigation of the sanitary conditions of this region shows that many of the street sewers are too small, and that 4 per cent of the houses have sanitary plumbing. Of the remaining 52 per cent, 7 per cent have defective plumbing, 22 per cent water-closets with intermittent water supply, 11 per cent have privies connected with the sewer, but without water supply, and 12 per cent have privies with no sewer connections. The streets in which the sanitary arrangements are worst had the largest number of cases of typhoid fever during the epidemic, irrespective of the poverty of the inhabitants. Flies caught in two undrained privies, on the fences of two yards, on the walls of two houses, and in the rooms of a typhoid patient, were used to inoculate eighteen tubes, and from five of these tubes the typhoid bacillus was isolated. Her conclusions were, that when the discharges from patients with typhoid fever are left exposed in privies or yards, flies may be an important agent in the dissemination of the typhoid infection."

Contagion from privy vaults. Second only to the danger from pollution of water and milk is that of the unprotected privy vault. It is often the plague spot, the very focus of infection, especially in the rural districts, where sanitary methods are little understood or appreciated. Until very recently how little attention was paid to the disposal of the dejecta of the typhoid patient, the sputa of the diphtheritic and the tuberculotic! With what impunity the open vault in the yard, the toilet in the house, became the common dumping ground for every unwholesome, vile, decomposing material, the feeding ground and nursery of the house-fly. The privy vault in the country is seldom, if ever, placed or constructed in a sanitary manner; always open both in front and in the rear, seldom cleaned, never disinfected. With the present arrangement of the toilets on our railroad cars, in the public schools and private dwellings, they become a serious menace to the public health and one of the most frequent sources for the dissemination of contagion. As an ordinary sanitary precaution it becomes imperative that every privy vault and toilet, in public buildings and private homes, should be properly ventilated and as thoroughly screened and protected from flies as the milk-house and dining-room. In order to obtain perfect protection from flies in this particular, I am of the opinion that it will become necessary to have every opening into vault and toilet covered with a screened spring lid, as well as screened doors.

In conclusion: 1. As a pure water supply is absolutely essential to the preservation of health it should be carefully protected from every possible means of pollution.

2. Milk from the time it is drawn from the cow's udder to that of consumption, should receive the utmost care, be screened, thoroughly guarded from flies and every avenue of contagion.

3. The privy vault and toilet should be properly located and constructed, ventilated and screened, kept absolutely free from flies and all dejecta from typhoid patients and those with other contagious diseases made sterile by disinfection.

4. We should urge upon people the necessity of screening their dwellings, meat, and all articles of food from contamination by flies.

5. As manure and other filth and debris are the breeding centers for flies it should not be allowed to accumulate.

6. Special attention should be given to the cleaning of public streets and gutters and proper disposal made of this fly-breeding material.

By the strict observance of such sanitary measures a successful warfare can be waged against the pollution of water, the contamination of food and dissemination of contagion by this pernicious little insect. To this end it becomes the duty of every physician, but especially health officers and boards of health, to enlighten the public and educate the people to the dangers of contamination and contagion and the value of the strict observance of all sanitary laws.

As "Prevention" is to be our motto during the present century let us safeguard every public and private sanitary interest with a jealous care, looking to the future for the full fruition of our hopes and rewards.

ASEPTIC CATHETERIZATION OF THE URINARY PASSAGES.*

By M. KROTOSZYNER, M. D., and W. P. WILLARD, M. D., San Francisco.

IN TREATING the subject of aseptic catheterization, we must consider the sterilization of catheters, the preparation of the urinary channel, and the introduction of the instruments in an aseptic manner.

As metal catheters can easily be rendered aseptic by boiling, nothing further will be said of them. More difficult is the sterilization of flexible catheters, the majority of which in use are made either of soft or hard rubber, caoutchuc or woven cotton and silk.

The literature of the last ten years is replete with publications of experimental work on the sterilization and preservation of these instruments. Aside from boiling, most of the methods recommended by various authors require expensive and complicated apparatus, which to the average practitioner are not available, and are out of the question for patients' use. We therefore conducted our experiments with the view of finding the simplest method of sterilization with the least impairment of the instrument. During our work we found that instruments infected with colon

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or mixed cultures from an infected bladder were more difficult to sterilize. It was also noticed that if the instruments were allowed to dry for a day or two, a longer time was necessary for sterilization. We will here give briefly a few of our experiments with these instruments:

A.—Soft rubber catheters.

1. Catheter infected with colon.—Boiled 3 minutes. Growth.

2. Catheter infected with colon.—Boiled 5 minutes. No growth.

3. Catheter passed into infected urethra and dried 24 hours. Cut into 3 pieces. (a) Washed in soap and water; boiled 3 minutes; sparse growth. (b) Unwashed.—Boiled 3 minutes. Growth. (c) Control. Growth.

4. Retention catheter that had been in an infected bladder 12 hours. Dried 24 hours. Cut into 4 pieces. (a) Washed.—Boiled 5 minutes. No growth. (b) Unwashed.—Boiled 5 minutes. No growth. (c) Ends clamped so that boiling water could not enter the lumen. Boiled 5 minutes. Growth.

5. Catheter infected with colon.—Washed.—Exposed to formalin fumes 30 minutes. No growth.

6. Catheter infected with mixed cultures.—Washed. Formalin fumes 30 minutes. No growth.

7. Infected retention catheter. Cut into 2 pieces. (a) Washed.—Dried.—Formalin fumes 30 minutes. No growth. (b) Unwashed.—Dried.—Formalin fumes 30 minutes. Growth.

The apparatus used for sterilization with formalin consisted of a long glass jar, the open end of which was closed by a hollow metal stopper surrounded by rubber; the bottom consisted of a thin piece of copper. A formalin pastille was placed in the stopper and gentle heat applied 110° to 115° F.) for about 15 minutes, or until the tablet was entirely disintegrated.

8. Infected retention-catheter. Placed in Kutner's sterilizer 3 minutes. Growth.

9. Catheter infected with colon. Kutner 5 minutes. Growth.

10. Mixed infection. Kutner 10 minutes. No growth.

The Kutner apparatus consists of a metal chamber surrounded by a water jacket in which steam is generated. The steam passes to the top of the apparatus from which the catheters are hung, then through the lumen of the catheters into the central chamber.

11. Catheter infected with mixed culture. Washed and immersed in bichloride solution 1-500 for 15 minutes. Growth.

12. Same as No. 11. (a) Thirty minutes. No growth. (b) Unwashed. Thirty minutes. Growth.

13. Catheter infected with mixed culture. Washed thoroughly in soap-spirits and running water. Immersed in soap-spirits for 15 minutes. Growth.

B. Silk-woven and hard rubber catheters.

We repeated the same experiments as outlined under "A," and obtained practically the same results as regards sterilization.

C. Ureter catheters. (1) Catheter infected with colon; boiled 3 minutes in water; growth. (2) Infected with colon; boiled 5 minutes; growth. (3) Infected with colon; washed; formalin fumes 15 minutes; growth. (4) Infected with mixed culture; soaked in 5% carbolic solution 30 minutes; growth. (5) Infected with colon; Kutner 5 minutes; growth. (6) Mixed infection; boiled in ammonium-sulphate solution 4 minutes; growth. (7) The same experiment as in six. Boiled 5 minutes; no growth.

We also experimented with various solutions of bichloride of mercury, carbolic acid, carbolic acid and hydrochloric acid, etc., but found them unsatisfactory and unreliable for sterilizing purposes. Some of the methods, although safe as regards sterilization, cannot be employed because they proved to be too destructive to the instruments. Soft-rubber catheters stood boiling in plain water for five minutes for six successive days and then became rather too soft for further use. Much better results, though, in regard to their durability were obtained by boiling in a concentrated sodium-chloride solution. Silk and cotton woven catheters showed, after one boiling in plain water, blisters and small cracks in the varnish coating. They also became too soft for further use. While soft-rubber catheters did not do well in a saturated solution of ammonium-sulphate, we found that the cotton and silk woven, as well as the hard-rubber instruments, survived longer if boiled in that solution than in any other. They will stand, as we found, ten successive boilings of five minutes each if put in the boiler wrapped thoroughly in gauze or a towel. If several instruments have to be sterilized at the same time, they must be wrapped in a towel in such a manner that the surface of each instrument is entirely covered by part of the towel and does not come in contact with the neighboring catheter or side of the boiler. In wrapping ureter catheters in a towel, particular care must be taken that no part of the same ureter catheter comes in contact with another part. After boiling in the ammonium-sulphate solution the catheters must be rinsed thoroughly in sterile water to free them of the crystals of ammonium-sulphate. Steam sterilization, either by the autoclave or Kutner apparatus, is as injurious to flexible instruments as boiling. Although varnished instruments do not crack or blister readily, they generally become, after three or four steamings, too soft for further use.

Sterilization by formalin is the least destructive, but as only the surface of the instrument is sterilized, the utmost care must be taken that it is thoroughly washed and dried before being exposed to the fumes. Catheters of small caliber, as ureteral instruments, soon become clogged up by deposits within the lumen. The length of time needed for sterilization (at least half an hour), and the fact that the whole process of sterilizing must be constantly watched, are serious obstacles to the use of formalin by the busy practitioner.

As the cystoscope is a means of ureter catheterization, we next experimented with its sterilization, which we found a more difficult task. The cystoscope cannot be boiled, for, as Caspar points out, the prism lies in a metal casing surrounded by cement. The connection between metal and glass does not permit heating, as the expansibility of these materials is very different. Besides, the material used for cementing the prism possesses a different expansibility, so that the prism will become loosened by frequent boiling, and water may enter. The reflecting surfaces of the prism also suffer from heating, and the lenses become more or less opaque from moisture being deposited as soon as the instrument begins to cool off.

In a recent publication Casper describes the following method for sterilizing cystoscopes: The non-removable parts of the instrument are rubbed vigorously with three separate pieces of cotton or gauze wet with soap-spirits for 3 minutes, especial attention being paid to the crevices and edges about the lamp and prism. The instrument is then snugly wrapped in gauze previously soaked in soap-spirits, in which it remains until ready for use. The removable metal parts are boiled five minutes. We experimented with this method in the following way:

1. Cystoscope infected with mixed culture and dried 24 hours. Rubbed 3 minutes with separate pieces of cotton soaked in soap-spirits. Washed in sterile water and plunged into bullion tube; growth. Soap-spirits made according to the following formula: 30 parts alcohol, 17 parts water, 7 parts potassium hydrat, 6 parts olive oil (Gerson).

2. Same as in 1, except it was rubbed for 5 minutes; growth. Soap-spirits made according to formula of Hebra.

3. Same as in No. 1; growth. Soap-spirits made according to the formula of German pharmacopea, containing 2 parts of a high-grade oil-soap, 2 parts of rosewater and 3 parts of alcohol. It can easily be prepared by the physician himself, and used in large quantities, as it is inexpensive.

4. After rubbing the instrument with soap-spirits for 4 minutes it was wrapped in gauze soaked in soap-spirits, and allowed to remain 24 hours; growth.

5. Cystoscope infected with a mixed culture and dried 24 hours. Washed in soap-spirits and warm water, rubbed with soap-spirits two minutes, then with alcohol for one minute. Washed in sterile water and plunged into bullion; no growth.

6. Proceeded in the same way as in experiment 5, and then wrapped in gauze previously soaked in soap-spirits, in which it was allowed to remain four days. Washed in sterile water. No growth.

The best results with the soap-spirits method are obtained if the gauze or towel used in wrapping the instrument is closely woven. If sterilized catheters, cystoscopes, etc., are snugly wrapped in a closely woven towel, we were able to keep them in a sterile condition for quite a number of days (at least five days). The soap-spirits on drying forms an air-tight covering around the instrument by filling the meshes of the towel with soap. We lay stress on the fact that soap-spirits after the formula of the German pharmacopea is to be used for soaking gauze or towel, as soap-spirits prepared in other ways did not form the essential impermeable covering.

Cystoscopes can also be sterilized with formalin-gas without injury, if the temperature in the chamber in which they are to be sterilized is not raised above 110° or 115° F. For this purpose we constructed an apparatus in the following way: A glass tube an inch and a half in diameter and about 14 inches long is fitted with two stoppers. The one at the top consists of a cork with a perforation which allows the passage of the instrument as far as the ocular. The lower one consists of a hollow metal chamber surrounded by rubber, the bottom of which consists of a thin piece of copper. The formalin powder or tablet is placed in the metal chamber, and gentle heat applied. Here, as in the sterilization of catheters, the instrument must be washed in soap and water and dried before exposing it to the formalin. Here are the results of some of our experiments with this apparatus:

7. Cystoscope infected with mixed culture and dried 24 hours. Placed in formalin chamber and gentle heat applied for 15 minutes. Washed in sterile water, plunged in bullion; growth.

8. Same as experiment 7, but allowed to remain 30 minutes; growth.

9. Cystoscope infected with mixed culture and dried 24 hours. Washed in soap-spirits and water and dried. Placed in formalin chamber and gentle heat applied for 20 minutes and then kept in the apparatus 10 minutes more. Washed in sterile water, plunged in bullion; no growth.

Although the formalin method seems to possess a higher degree of safety as regards sterilization, still its application for general use will be marred for the reasons stated above as requiring too much time and constant watching during the process of sterilization. We are, therefore, pleased to be able to recommend, from our work, the method as described in experiment 5 as the simplest and at the same time a safe procedure for sterilizing cystoscopes.

As to the question of keeping catheters, cystoscopes, etc., after sterilization, we found that the many devices, tubes, jars, etc., designed for keeping catheters sterile, of which by means of a formalin pastille, are unsafe as regards sterilization. In order to keep instruments sterile for a reasonable length of time we recommend wrapping them tightly in a closely woven, sterile towel, wet with soap-spirits, G. P.

As regards the introduction of instruments in an aseptic manner, it is a well-known fact that even the healthy urethra harbors various organisms; but it is doubtful if they are capable of infecting the mucous membrane of the bladder. Before introducing an instrument, the meatus should be carefully sponged off with alcohol or a sublimate solution. Although it is impossible to free the urethra of micro-organisms, many authorities recommend as a matter of precaution the flushing of the urethra with sterile water or a solution of boric acid before instrumentation.

Another important point is the choice of a lubricating agent. Oil can be sterilized by boiling, but this is a slow and dangerous procedure, and it soon becomes rancid. It cannot be used for lubricating cystoscopes, as it blurs the optic. The same is true of vaseline. Both oil and vaseline form a tenacious coating on the instrument which cannot easily be removed in future sterilization, and, according to Casper, favors the lodging of infecting bacteria on the surface of the instrument. For this reason patients should be especially warned against the use of these lubricants.

Of late years we have used almost exclusively glycerin, the sterilization of which is unsatisfactory. Its great disadvantage, though, is that it is not a good lubricant, and of no value where catheterization is difficult. More satisfactory is a combination of glycerin, tragacanth and water, as originally recommended by Guyon and Kraus. Casper added to this combination cyanide of mercury, in order to make it antiseptic. Culture-tests made by him with this lubricant containing cyanide of mercury in a strength of 1-500 proved it to be antiseptic. The formula is tragacanth, 3.0; aq, destil, 100.0; glycerin purissim, 20.0; hyd. oxycyanatum, 0.246. Our experiments agree with those of Casper. It can be used for lubricating cystoscopes, as it dissolves readily in the bladder fluid, and therefore does not blur the optic. It is a good lubricant, and is non-irritating. Being semi-solid, it can be kept in collapsible tubes, which facilitates its use. Care must be taken in its preparation, however, as some of the first tubes we obtained were very unsatisfactory.

In conclusion we will briefly summarize those methods of sterilization that proved to be safe and simple:

a. Soft rubber catheters are rendered sterile by being boiled five minutes, preferably in sodium-chloride solution, care being taken that the solution fills the lumen of the catheter. As a matter of precaution the catheter should be washed with soap-spirits and running water after use.

b. Hard rubber and silk and cotton woven catheters should be boiled 5 minutes in a saturated solution of sulphate of ammonia. Each instrument should be wrapped separately in gauze or a towel, or if several catheters are to be sterilized, in such a manner that their surfaces shall not come in contact with the sides of the vessel or with other catheters.

c. Ureter catheters can be folded and wrapped in a towel so that their surfaces are kept apart, and boiled for 5 minutes in a saturated solution of ammonium sulphate.

d. Cystoscopes should be sterilized by first washing them in soap-spirits and water, then rubbing them vigorously for two minutes with two different pieces of gauze or cotton wet with soap-spirits, and then with alcohol for one minute. The channel for the ureter catheter can be cleansed out by means of a brush like those used for cleansing pipes, first brushing with soap-spirits, then with alcohol.

e. Instruments can be kept aseptic if they are snugly wrapped in a piece of gauze or a towel wet with soap-spirits.

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THE SANITARY NEEDS OF THE STATE.*

By N. K. FOSTER, M. D., Sacramento.

THAT government best serves its subjects which gives to them the largest measure of protection in all their rights and privileges. If "life, liberty and the pursuit of happiness" are inalienable rights, the means of acquiring and preserving them are also. That life and happiness depend upon health is, of course, unnecessary to argue; it is self-evident. And while the connection between liberty and sanitation is not as direct, it is demonstrable. To maintain liberty it requires force and energy, and these qualities pertain only to a people who are strong and healthy. Strength and health in turn are not the qualities found where the surroundings are filthy and unsanitary. There is no duty of a state more pressing and necessary than the preservation of the public health; no department of the government which should call to its aid a higher degree of ability, or where its money can be spent with an equal return. Poverty and crime are the great causes of governmental outlay, and they go hand in hand with squalor and disease. Whatever destroys sickness and preserves the health of the people increases the direct wealth of the state and prevents the necessity of spending vast sums of money in capturing and punishing criminals.

A year's study of the sanitary laws of California, and close observation of their workings, has proven to me that they are entirely inadequate for the needs of the state. Some are poor and useless, and all are antiquated. In no branch of knowledge has there been shown more activity during the past ten years than in that of sanitation and preventive medicine. The old ideas of cause of disease have passed away, and methods of prevention are in use now that were little dreamed of when our laws were made. Means of research have been introduced and safeguards to the public health are maintained in many states which with us are unknown officially; nor can we adopt them under our present laws. As a result, many of our streams are running liquid filth. Nuisances are being maintained in thickly settled but unincorporated portions of the state. Persons sick with contagious diseases are traveling at will on highways and railroads, and sometimes even being sent by civil authorities.

Public buildings are being erected without due regard to sanitary conditions; milk from diseased cows and swarming with filthy bacteria is fed wholesale to the unsuspecting people; impure food, ice and water are sold without restraint. Our wines are made, bottled and sold with simply the guarantee of the maker as to their purity and cleanliness. The floors of our steam cars, street cars, boats and public buildings are covered with expectoration, often from the throats of diseased people. This, not because the owners are not willing to keep them clean, but because there is no authority to do so. These are but a few of our many defects. Some of our cities have excellent sanitary regulations and well-executed laws, but they include but a small portion of the state, and are themselves endangered by the unsanitary conditions outside their jurisdiction.

There is no lack of laws to protect us from bodily harm, nor power to enforce them. Every city has its thoroughly organized police force; every county its sheriff and deputies; the state its militia, on which many thousands of dollars is spent. Should a jail be threatened by a mob which sought to punish some miscreant where the law had failed, or should the life of a citizen be threatened, these forces would be called out and no expense spared. If a murder is committed or a prisoner escapes, the machinery is set in motion, and a reward offered. A perfect system exists from municipality to state. Each has its power and sphere of action, and all work in harmony. It is expensive, but is justified by results.

How is it with our sanitary affairs? There is no head or body (outside a few cities), and hence no effective work can be done. As an example of what the state board is running against, note the following: In a rural colony where there are many fine residences, surrounded by orange and olive groves, vineyards and beautiful grounds, a man established a packing-house, and behind it, in a little valley through which runs a stream of water, he had a large hog yard. This polluted the water, and was itself very offensive to the inhabitants near it. They appealed to the local health officer; he visited the owner, who assured him that it was not offensive to his family, and he returned home. I was asked to see it, and did, visiting first the offensive pen, and then followed down the stream, the water of which was used below. I then went to see the owner, and tried to show him where he was doing wrong; he curtly informed me that he would raise as many hogs as he pleased, and as he pleased. I was powerless to act. An appeal to the Attorney General informed me we had no power to prevent the pollution of streams, but might report to the Legislature, with pertinent suggestions as to remedial legislation.

Hundreds of lives are yearly sacrificed to the lack of a thoroughly organized health department with power to enforce its rules and regulations. While our militia is out in force hunting an escaped felon, death, in the shape of disease germs, is riding in state down our streams. Individuals and cities are, almost without protest, pouring their sewage into the streams for others to drink.

All the conditions I have mentioned, and more, obtain, and we are powerless to act, except in an advisory way. We can give advice, but with no power to enforce it there is generally no good result. It is of little use to criticise existing conditions unless one has something to offer in place of them. My idea is to have an organization with the physician as the unit. In each county have a well-paid health officer, who must be a physician in good standing and able to make bacteriological examinations. He should be county physician, and, where needed, devote his whole time to the work. He should receive his appointment from the county board of health, composed of the supervisors and county auditor, and should be ex officio member of the board, and its executive officer. All physicians should report contagious diseases to him, and he superintend the quarantine and disinfection. He should be the collector of vital statistics, and every month make such reports to the state board as they may require; and to receive pay only after the state board has audited his claim (this to insure prompt reports). In large counties deputy health officers may be provided for.

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The state board should be provided with a chemist and a bacteriologist and a well-supplied laboratory. A state inspector could, with advantage, be employed all the time, with power to investigate wherever there was a nuisance—polluted water, impure food or milk, or, indeed, any condition detrimental to health. All regulations of the county board should be submitted to the state board so as to insure uniformity. All health officers to serve four years, unless removed for cause after a full hearing.

This is a mere outline of an organization, but when elaborated and supplemented with a few plain, effective laws, and appropriations sufficient to carry on the work, would make it possible for California soon to stand in the front rank of sanitary states.

DISCUSSION.

Dr. Martin Regensburger, San Francisco.—The sanitary needs of the state are indeed very great. I expected to find more complaints in Dr. Foster's paper than he has made. The board of health is at present formulating laws for getting the sanitary condition into shape. Heretofore in this society the question of politics has been looked upon with sneers. With the experience we have had with our board of examiners we know just the difficulty we have had securing these laws. If our members would take an interest in politics, see the different legislators and explain the necessity of sanitary laws, there would be no trouble. Our laws are such that the state board of health is powerless. We can go to the different county supervisors and influence them to take action, and we may or may not meet with success. A short time ago a delegation came to me and wanted help. They were in trouble with their doctors. Their health officer was not a doctor, and they could not get the proper care for a sick man. They appointed a new board of health, and the man was attended to, after ten days with no medical attendance. We have established in San Francisco a conference for the purpose of aiding the State Board of Health in securing laws. The state and city boards of health, the Marine Hospital Service and the Merchants' Association are working together harmoniously. The conference which we had last year has been continued. As you all know, we were looked upon as a set of liars. I think a great deal can be attained for the sanitary needs of California. We have also established a laboratory to aid the state when making an examination of any suspicious case. If the health officer wishes to send a smear or bacteriological specimen, our bacteriologist will make the examination for him. I would like to emphasize that if the State Society would have a committee on politics, a committee which would interest itself in formulating some kind of a resolution to send to the different legislators, it would be of great assistance. The State Society should be the one to assist the State Board of Health.

Dr. H. N. Rowell, Oakland.—I have been much interested in Dr. Foster's paper and the discussion. It has a direct bearing upon the "doctor in politics." Doctors are not sufficiently in politics to see whom we send to the Legislature. We should be more interested and particular instead of swallowing the political program. It is far better for us to see our man and have something to say to him prior to his election. Doing this we have something to bank upon. Then we would not have to go and wait for him, but we would have a right to him by the reason of the promises he has made. I wish to see the day when the doctors will be, as a whole, better politicians.

Dr. C. C. Browning, Highlands.—There are two features of the paper which I would like to mention. First, in regard to the term of office of the health officer. Instead of four years, I think it should be for a term of good behavior; should not be removed unless removed for cause. I believe in that way greater good could be accomplished, and the efficiency of an officer would increase with the length of service. Another point is the matter of salary. As the law now stands the salary is not more than $50 per month. The doctor proposed that the county health officer shall draw an adequate salary. With reference to my own county, if I have the data correctly, we are paying that $50 to the county health officer, and require of him that he shall treat the persons in the County Jail and attend and assist the physician in charge of the County Hospital. He considerably more than earns his $50, and has not yet given any attention to the health of the county. In addition they have a large number of local health officers, who receive about $15 per month. We are paying to these health officers, including the county health officer, about $300 per month. There is a salary that would be attractive. A good man might be obtained for $200. I believe that then conditions might be much improved, and really at a saving rather than additional expense when we speak of the increased salary. The salary should be accumulated on one man who would devote his entire attention to the work.

Dr. N. K. Foster, Sacramento.—In regard to Dr. Browning's suggestion for the term of a health officer, I am ready to accept his amendment. As to the payment, I think it would be cheaper if we had a well-paid officer than the numerous officers we have. In relation to politics, we should not only see the man before he goes to the Legislature, but some of you should go yourselves. There are conditions there always assigned to the committee which they can go through. They can manage the committee. Anyone knows that if you get a favorable report on a bill it has a good chance to go through. If unfavorable, it is almost sure to die. It did me good to hear our president's address this morning. He went over ground very seldom spoken of. I hope that all over the state there will be an effort to get some medical men into the Legislature. We must have sanitary laws. We are way behind in that regard. It is discouraging to try to work when you cannot accomplish anything.

PERTUSIS OR WHOOPING COUGH AND ITS TREATMENT.*

By H. J. RING, M. D., Ferndale.

I PRESUME you are all familiar with the pathology of whooping cough. I am not. You know its peculiar symptoms and characteristic cough. You know it is a contagious disease. I do not need to go into details in describing the disease, more than to say that it is a catarrhal inflammatory condition of the respiratory tract associated with a peculiar spasmodic cough ending in a whooping inspiration. The bacillus of whooping cough has not been positively obtained and identified, but there is hardly any doubt of its existence, consequently it should be classed among purely infectious diseases. We will pass its etiology, pathology and bacteriology. The clinical history is as follows: Stage of incubation varies from four to fourteen days, when the catarrhal stage is ushered in, lasting a week to ten days, succeeded by the paroxysmal stage, when diagnosis becomes easy.

The treatment of pertussis is generally considered unsatisfactory, though made to embrace nearly all the therapeutic agents of the materia medica. We recognize it as a formidable disease; especially in very young infants it is very fatal, and at any age it may lead to grave complications and sequelæ. Hence anything that can be obtained for ameliorating its symptoms, moderating its course and shortening its duration, should be welcomed by the profession in the light of the fact that there are no known specifics for this disease. I do not mean to bring out anything new for your consideration, but,

*Read before the Humboldt County Medical Society.

on the contrary, something quite old and perhaps forgotten by the majority of the profession of to-day, and I would not now bring it to your notice had I not had a long experience with it as a remedy that will always give you satisfaction. In 1880 I was in partnership with a Dr. Gale, and practicing in the state of Nebraska. Dr. Gale visited a brother, a physician, of Bloomington, Ill., who informed him that another old doctor told him that a fluid extract of chestnut leaves was a specific for whooping cough, and would cure it every time. My partner had three children who, on his return home, were taken with whooping cough. He procured the fluid extract castanea and gave it to his children, who promptly improved, and soon recovered. Since that time I have used it in every case of whooping cough, if I could procure it, which I could not always do; but since I have practiced in Ferndale I have nearly always had it at hand, and it forms the basis of my treatment for this disease in every case. I find, however, that it acts generally more promptly when I combine it with belladonna and hyoscyamus. Again, I have combined it with small doses of fl. ex. ergot where there was any indication of brain complications, with very satisfactory results.

The beauty of administering this remedy is that when given with syr. simple all children take it readily, as it is not unpleasant. Then again, it has no bad effect whatever in any manner, and appears to be perfectly harmless in moderate doses, no matter how long continued. And again, the same size doses should be given at any age over two years old, and 15 to 20 minims every two hours is sufficient. My usual prescription is this:

℞ Fl. Ex. Castanea ℥;
" " Belladonna gtts. IV;
" " Hyoscyam m.x to ℥i according to age;
Syr. Simp q. s. ad. ℥iv;
(Any desirable flavoring may be added.)
Sig. ℥ every 2 hours.

Any local applications may be used in conjunction with this if required in severe cases, but castanea should be continued right along until treatment is unnecessary. I have used this remedy in this disease since 1880, and have always found it satisfactory, though it cannot be claimed to be a specific. It will moderate any attack and shorten its duration. It is, however, essential to know that you obtain a reliable preparation.

This may be an old chestnut of long ago, but try it anew and you may smile at its effects, especially if you have children of your own to try it on.

ADENOIDS.*

By E. A. DIAL, M. D., Santa Barbara.

THE physician who limits his practice to the treatment of the diseases of any special organ, or organs, is prone to become too enthusiastic on the importance of the pathological conditions of the parts he sees, treats, hears, and reads about. This may be true of the specialist who regards a woman's generative organs the center of her solar system, or the defective eye the cause of all headaches, or the stricture of large caliber the focus of all nervous troubles in the male; yet no man has ever exaggerated the important role that adenoids plays, in the causation of diseases. Therefore, I beg of you not to regard what I have to say as remarks coming from a man with a hobby.

About thirty-five years ago a physician, Hans Wilhelm Meyer, of Copenhagen, was consulted by a girl, aged twenty, who suffered from deafness, whose voice was most peculiar, and the expression of whose face was almost idiotic. He had seen and treated these cases before. Sprays, pigments, powders and internal medication had always failed him. We all know what it is to be confronted with incurable diseases, and can understand how the first impulse of this great man might have been to apologize for the inefficacy of medicine in such conditions. But right there "his tide was taken at its flood," and led on to a fame that will last forever. He did a simple thing when he passed his finger into the space between the nose and throat of this child, but he made a discovery that has benefited thousands, and will be a blessing to millions yet to come. And to-day there stands in the capital of Denmark the only monument ever erected to the memory of a man for the discovery of a single operation.

Situated at the vault of the pharynx is a collection of lymphoid tissue, called the pharyngeal tonsil, Luschka's tonsil or third tonsil. It is a normal organ; very vascular and covered by thin mucous membrane. Like the faucial tonsils it undergoes atrophy about maturity. Luschka first described it as a gland, or tonsil, studying it on the cadaver only. Now let us remember that the pharyngeal tonsil normally exists in children and is not designated as adenoids so long as it remains in a healthy condition. This is, by the way, contrary to the teaching of Prof. Bosworth, who holds that a tonsil is an abnormal growth, wherever found, and should be removed when visible.

The definition of adenoids as used in this article is, "An enlarged pharyngeal tonsil." This is short and simple, but it tells the tale. There are other diseases of the lymphoid tissue in the vault of the pharynx which are not embraced within this definition, and of which my paper has nothing to do. Meyer termed hypertrophy of the pharyngeal tonsil, "adenoid vegetations," from the mistaken idea that these growths are glands, which they are not, yet the term still clings to this condition. Adenoids is a disease of childhood—between the ages of two and fifteen. I have never met with a case, in my practice, before the second year. However, I have seen two nursing infants operated on for adenoids in the clinics of New York. If we bear in mind that the naso-pharynx of infants is usually smooth—the lymphoid tissue not being developed—we will not be fingering for adenoids on every babe who refuses to suck, for the supposed reason that it can not draw air into its nostrils and milk into its mouth at the same time. It is doubtful if true adenoids ever exist in the adult. I have curetted the vault of the pharynx of adult patients for a modified hypertrophy something like the enlarged lymph-follicles we see in chronic granular pharyngitis.

The problem is yet to be solved why some children have adenoids and others do not. The "causes" as given by the authorities are: It may be congenital, colds, measles, diphtheria, scarlet fever, influenza, heredity; "a catarrhal condition" of the nasal passages, deformity of the hard palate; obstruction in the nasal passages; strumous and tubercular diatheses; exophthalmic goitre; syphilis; digestive disturbances; a damp habitat, and so and so on. All of which means that nothing is known about the etiology of the subject under discussion. Notwithstanding this generous list of causes, which can be used to account for all ills, except gonorrhea, about sixty-five per cent of our cases of adenoids have no clinical history which in any way can account for the origin of the disease.

When we come to deal with the symptoms, we are more fortunate, as no disease presents more unmistakable signs. The great subjective symptom is mouth breathing, and mouth breathing means nasal obstruction, and nasal obstruction in a child means adenoids almost every time. If the vault of a healthy two-year-old child was kept continuously occluded with a sterile tampon—if such a thing was possible—I believe we would get the mouth-breather's face identical with that produced by adenoids; stupid expression, open fish-shaped mouth, thick lips, pinched

*Read before the Santa Barbara County Medical Society, November, 1904.

nose, undeveloped nasal bones, V-shaped arch of palate, irregularity of upper teeth, drooping eye-lids. In addition, there is often dullness of hearing, nasal intonation to voice, and lack of development of the chest walls. Frequently there are neurotic manifestations; as asthma, chorea, neuralgia, nocturnal enuresis, and night terrors. Due to the obstruction to the cerebral lymphatic circulation, many an adenoid subject suffers from a condition of mental lethargy, called aprosexia, marked chiefly by the inability to concentrate the mind.

The diagnosis is easily made, or surmised, in a typical case at a glance; but we must not fall into the habit of making "snap" diagnoses no matter how convincing first impressions are. Every suspected case must have the nasal passages, naso-pharynx and lower pharynx examined.

It is almost impossible to use the rhinoscopic mirror in children, therefore, we have to rely on a digital examination. It is not very agreeable to the little patient, but it can be done in a moment. No anesthetic is necessary. I wind, not wrap, the child in a sheet, and either stand or sit, according to the size of the patient, to the child's right. With my left hand I keep the patient's cheek pushed in between the teeth, while my right fore-finger explores the naso-pharynx. Some adenoid masses are soft and feel like a wet sponge or "a hunch of earth-worms." Others will feel firm and smooth. As to location, the finger may feel a lobulated mass at the vault or along the posterior curve of the pharynx; or small patches of adenoid tissue distributed from one side to the other; or the entire space may be filled with soft "vegetations."

Having briefly reviewed the symptoms and diagnostic points, we will now take up the evils of adenoids. Do you know, gentlemen, that we have those in our profession who advise the parents of these unfortunate children to wait and the child will outgrow the adenoids? In fact, I am told that the homeopathic doctors universally oppose the removal of any enlarged tonsil. When the above mentioned parents come to me, I say to them that the enlarged mass will probably disappear if the child lives to maturity; but the adult will surely suffer from some disease of the throat or ear in consequence, since it is no longer disputed that many of the cases of naso-pharyngitis, chronic rhinitis and deafness in the mature individual are due to untreated adenoids of childhood. The majority of the cases of chronic purulent otitis media are due to the same cause.

Who knows how many victims of that stinking disease, ozena, have adenoids to thank for a life of misery? No beautiful woman ever developed with a vault full of adenoids. No sweet singer could have been produced from an adenoid child untreated. No great actor or orator ever "outgrew" adenoids. Look at the pictures of the great men of the past and present and you will not find one whose face shows the footprints of a neglected adenoid period. Then where shall we meet the untreated cases? You will find some of them in the insane asylum: more in the homes of the feeble-minded; many more in the institutions for the care of the deaf and semi-mutes; and the great bulk of them at the tail end of life's procession.

In the very young, enlarged tonsils and adenoids can be justly credited with being the almost invariable cause of ear-ache, which is due to either a suppurative or non-suppurative otitis media. If the latter, an acute inflammation of the mastoid cells may follow. The eustachian tube is more open and shorter in child life, and the orifice is in close proximity to the lymphoid tissue in the naso-pharynx; thus we understand how easily the middle ear is infected by this ideal culture field for pathogenic organisms. These children are very susceptible to the infectious diseases, because they possess a lowered vitality, and a good culture medium within the air passages. For the same reason they are more subject to the acute faucial diseases. If there was no lymphoid tissue in the path of inspired air, maybe there would be no diphtheria or scarlet fever.

The adenoid child is behind with his school work, and in marked cases is as stupid as he looks. The accumulation of carbon dioxide in the cerebral circulation, due to the faulty breathing, is one of the causes of this stupidity. Makuen, of Philadelphia, reports two cases in which the removal of adenoids cured stammering. One child ceased to stammer immediately after the operation.

The treatment by local applications is utterly useless, so we will not discuss it. The only thing to do is to remove the adenoid growths. Almost every operator has his way of doing the job, and each thinks his plan the best, or he would not adopt it. Meyer used a straight curette, or ring knife, passed through the anterior naris and guided by the finger introduced behind the velum. Then came the avulsion forceps, cutting forceps, artificial finger nail, galvano-cautery, cold wire snare, etc. In this operation, as in every other surgical act, it is the man and not the instrument, that does the work. As this is an out-of-sight operation, a well educated finger is essential.

While the patient may be benefited by even a partial removal of the mass, the surgeon should not consider the operation well done unless he has gotten it all away from the latteral regions of the pharynx, above the openings of the eustachian tubes and in Rosenmuller's fossa. The partial removal plan, based on the hopes that absorption will finish our incomplete operation, is to be condemned. The choice of an anesthetic, and the position of the patient, are as varied as the instruments, and it is not necessary for me to go over what you will find in the text books.

"MOTHER MARY."

Now, who is this Mrs. Eddy? She is Mrs. Mary Moss Baker Glover Patterson Eddy. Mrs. Eddy has had three husbands, and the last one, she says, "died of arsenical poisoning mentally administered." She began her school of teaching in 1867, with one student, and in 1881 obtained a charter from Massachusetts for her metaphysical college, which was located in Boston. At this institution the student must pay $300 for twelve half days of instruction, and the whole course lasted but three weeks. They then received a diploma. In 1889 the new diploma laws of Massachusetts closed this institution, at which time Mrs. Eddy declared that 300 students were clamoring for admission. If this were true, they would have paid $90,000 for twelve half days of instruction, probably the highest tuition fees ever required for instruction on any subject. She acknowledges this tuition fee was large, but says she "was led to name this amount by a strange providence."—Dr. O. T. Osborne, Address. A. M. A.

Good Milk in Milwaukee.

The milk commission of the Milwaukee Medical Society, organized January 13, 1904, has made its first report, published in the *Wisconsin Medical Journal* for January, 1905. The largest number of bacteria per cubic centimeter of milk was 2370, and of cream, 1200; the average for the year was 630 for milk and 528 for cream. The maximum content for permissible certification is 10,000, so it will be seen that there was no difficulty in keeping the actual content far below the requirements. The showing is very fine and the society and the commission are to be highly complimented.

A $14.000 verdict was sustained in the case of Wallace vs. Vacuum Oil Company, decided by the Supreme Court of New York, in which the injury is described as "the loss of an eye and other serious injuries."—L. Sexton.

COUNTY SOCIETIES.

Orange County.

The Orange County Medical Association met in regular session February 7th.

There was a good attendance. The Association passed resolutions opposing the bill to amend the Medical Practice Act and the bill creating a Board of Naturopathy; also endorsing the bill creating an examining board for nurses.

Dr. Boyd read the paper of the evening entitled, "Pneumonia," which of course elicited much discussion. All manner of treatment being advocated, but the general admission was that as large percentage die today as did 200 years ago, hence we have no "specific" for it. H. S. GORDON, Secretary.

Pasadena Branch, Los Angeles County.

At a meeting of the Pasadena Branch of the Los Angeles County Medical Association at which there were 30 members present out of an enrollment of 42, the following resolution was presented by Dr. Bridge and unanimously adopted by the section.

Resolved, That it is the sense of this Section of the Los Angeles County Medical Association that the existing medical law should be left on the statute books as it is and that no further medical legis'ation should be enacted at this session.

Our section is in a flourishing condition and we have large and interesting meetings.

At the December meeting Dr. W. H. Roberts was chosen chairman and J. E. Janes, clerk.

At the January meeting the members of the section were the guests of the retiring chairman, Dr. F. C. E. Mattison, at the Valley Hunt Club House.

The exaugural of Dr. Mattison was on the "Relation of the Physician to the General Public." Dr. Gaspar Miller of the Wm. Pepper Laboratory, Philadelphia, was present and spoke instructively of the effort of Philadelphia to get a better milk supply.

At last meeting we were guests of the new chairman, Dr. W. H. Roberts. "Croupons Pneumonia" was discussed, different physicians speaking of its different phases. Interesting clinical cases were presented.

J. E. JANES, Clerk.

Placer County.

A meeting of the Placer County Medical Society was held in the court house on February 4th last for the purpose of transacting business only. The Secretary, Dr. R. F. Rooney, read his report for the last year. The Society is in a flourishing condition and has a greatly increased roll call to what it was a few years ago. The Secretary proposed an amendment to the Society's constitution and several resolutions were adopted.

The amendment was: That the annual dues of the Society be increased from $2.00 to $2.50 in order that the Society can meet the extra demand on our treasury required by the State Medical Society.

The resolutions were:

Resolved, That the Society of Placer County is firmly opposed to contract lodge practice.

Resolved, That the Society of Placer County is firmly opposed to the publishing in reputable medical journals of patent and proprietary preparations unless a quantitative analysis is published with the advertisement.

The Treasurer's report was next read, showing a balance in favor of the Society of almost enough to carry the members through to another year without levying the additional 50 cents dues.

Since the State Society will not acknowledge members unless they belong to some county society, the physicians in Nevada and El Dorado Counties were extended an invitation to join the Placer County Society, and four of the five requested accepted the invitation and have become members.

The officers elected for the ensuing year are: Dr. T. M. Todd, President; Dr. J. T. Jones, Vice-President; Dr. J. H. Mules, Secretary; Dr. R. A. Peers, Treasurer.

By the resignation of Dr. R. F. Rooney from the Secretaryship of the Society, which position he has held since the organization was first started in 1889, its members lose an officer whose untiring energy, straightforwardness and high ethical principles have been the means of bringing this Society to the successful position it now occupies. Dr. Rooney was the first to establish a society in Placer County and has held the position as its Secretary since he and our present President, Dr. T. M. Todd, and Dr. Miner, who has since left the county, first organized a meeting in 1889.

The next meeting of the Society will be at Colfax on June 3rd for the purpose of exhibiting specimens and interesting cases, and also for the discussion of papers to be presented by the following gentlemen: Drs. J. F. White, J. T. Jones and R. A. Peers.

Dr. Peers extended an invitation to the members of the Society to partake of his hospitality during the Society's sojourn in Colfax.

A vote of thanks was tendered to Dr. Peers.

J. H. MULES, Secretary

Riverside County.

At the regular annual meeting of the Riverside County Medical Society, January 9, 1905, the following officers were elected: W. W. Roblee, President; H. R. Martin, Vice-President; Samuel Outwater, Secretary-Treasurer.

A very interesting paper on "Urinalysis and Its Clinical Significance," was presented by Dr. A. W. Walker.

Dr. A. S. Parker reported a case of severe "Infection," due to a needle piercing the finger of a laundress, the needle having been left in the wash of a carbuncle patient.

The hostess of the evening, Mrs. A. S. Parker, then invited the members to the dining-room, where delicious refreshments were served.

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The regular monthly meeting of the Riverside County Medical Society was held on February 13th at the residence of Dr. Clarke.

A paper on "Recent Observations in an Eastern Hospital," was read by Dr. Kendall.

Dr. Van Zwalenburg gave a digest of several papers, by eminent authorities, on "Aseptic Surgery." Both subjects brought out an interesting discussion

The name of H. M. Robertson was proposed for membership, and was referred to a committee of three.

Mrs. Dr. Clarke then entertained the Society at a banquet.

San Benito County.

The regular monthly meeting of the San Benito County Medical Society was called to order on Monday evening, February 6th, at the residence of Dr. F. O. Nash. Minutes of the previous meeting were read and approved. The Board of Censors reported favorably upon the application of Dr. W. T. Hicks, who was duly elected to membership.

Dr. L. C. Hull presented a paper upon "Eclampsia," in which he cited interesting histories of six personal cases with a mortality of fifty per cent. There being no further business the meeting adjourned.

JOSEPH M. O'DONNELL, Secretary.

San Bernardino County.

San Bernardino County Medical Society met as per By-Laws at 2 o'clock P. M. with the President, Dr. Browning, in the chair. Minutes of the last meeting were read and approved.

Upon application the following doctors were unanimously elected members of this Society, viz.: Dr. C. E. Ide, Dr. John A. Shreck, Dr. Jno. L. Avey, Dr. F. M.

Moore, all of Redlands; and Dr. N. Antionette Bennette of San Bernardino, California.

The election of delegates to the State Society to be held in Riverside, April 18th, 19th and 20th, being the order of business, upon motion of Dr. Tyler, Dr. C. C. Browning of Highlands was nominated. No other nominations were made. Dr. Hurley moved the suspension of the rules and Dr. Browning be elected by acclamation. It was so ordered. The election of an alternate being in order, Dr. Payton moved that Dr. Hoell Tyler be elected as such alternate. No other nominations being made, upon the suspension of the rules, Dr. H. Tyler was unanimously elected such alternate.

The next order of business being the reading of papers and presentation of cases, Dr. H. W. Mills presented four cases of surgical operation, viz.:

First, a case of prostatectomy in an old man 65 years of age. The doctor presented the patient and also the anatomical specimen, it being a large prostate. The doctor described his operation as being a super-pubic one and giving all the technic. The recovery was a good one, the patient stating that he now experienced little difficulty in voiding urine. This case was discussed by various members of the Society.

Dr. Mills also presented a case of ileo-colotomy in a lady of about 50 years of age. He gave an interesting account of his operation and presented the patient. She stated that she felt much better than in many months passed.

Dr. Mills then presented a case of lumbar-nephrectomy in a boy of five years of age; also presented the kidney. The doctor gave his technic in the case. Stated the condition of the patient at the present, now five months after the operation, as being well—a complete recovery. The case was discussed by Dr. Strong and others, Dr. Strong giving several cases that he had been interested in, all of which gave good results.

Dr. Mills then presented a case of hysterectomy, described the condition of the uterus before the operation. He described his technic and presented the uterus and stated the lady was about 50 years of age, she had made a complete and quick recovery, was now attending to her household duties. This case was discussed by Dr. Tyler, Dr. Strong and various members of the Society.

Dr. Blythe then offered the following resolutions, viz.: That the Secretary of this Society be instructed to report the proceedings of the Society to the STATE JOURNAL OF MEDICINE and other medical journals of this State.

Adjourned to second Wednesday in March at Redlands. J. M. HURLEY, Secretary.

San Francisco County.

The regular meeting for February was called to order by the President, Dr. Rixford, at 8:30 P. M., February 14th. Dr. J. H. O'Connor reported the occurrence of a carcinoma of remarkable size, involving the whole of the abdominal organs, and exhibited the specimen.

At 9 o'clock the report of the special committee on an amendment relating to contract practice became the special order of business, and the Chairman, Dr. Power, reported progress and read a proposed resolution and the opinion of an attorney upon the question.

Moved by Dr. Jones: That the report of this committee, together with the proposed amendment, and the present constitution and by-laws, be referred to a special committee of five members, to be appointed by the President, with instructions to prepare a constitution and by-laws which will include the amendment now proposed and will provide an organization of the general nature of that in force in the Cook County Society and the Los Angeles County Association, under which plan business is transacted by a legislative body and the scientific work of the Society is thus not interferred with; this committee to report to the Society as soon as possible. This motion was unanimously adopted.

Drs. Ebright and Huntington reported a case of typhoid perforation with surgical treatment. This was discussed by Drs. Cheney, Power, Terry and Cooper, who dwelt upon the necessity for early diagnosis and called attention to the fact that the early symptoms might be very slight.

Dr. Wm. Ophüls read a paper on "Some Problems in the Pathology of Syphilis," which was discussed by Drs. Blumer, Grosse and Lehmann.

The committee appointed to consider the advisability of establishing a milk commission reported as follows:

To the San Francisco County Medical Society: Your committee appointed to consider the advisability of establishing a milk commission in San Francisco finds upon investigation that similar commissions are in successful operation in several large cities in the East, notably in New York, Philadelphia and Buffalo, in each case acting under authority of a local medical society. We therefore make the following recommendations:

1. There shall be a milk commission of the San Francisco County Medical Society, whose duty it shall be to examine milk submitted to them by dairymen and certify as to the result of such examination, with the object of obtaining pure milk for infants and invalids.

2. This commission shall consist of four members besides the President of the Society, who shall be a member ex-officio. The members shall be appointed yearly by the President, as soon as possible after his election; except that the tenure of office of the first commission appointed shall terminate with that of the President then in office.

3. The commission shall report to this Society a detailed plan of the methods it proposes to employ in order to accomplish the purpose for which it is created; such report to be presented at the next regular meeting after the commission is appointed, and to be subject to approval by this Society before it is finally submitted to dairymen and to the public.

4. The actions of the commission shall subsequently be reported from time to time to this Society and shall be subject to its approval.

Committee:

WM. FITCH CHENEY, Chairman
ALFRED BAKER SPALDING.

The proposed amendment to Article XV of the by-laws, setting aside $2.00 per year of each member's dues for a building fund, came up for final action and was unanimously adopted.

The chair called attention to some communications from the Secretary of the State Society relating to legislation at Sacramento, and on motion of Dr. Rosenstirn the President and Secretary were made a special committee to address the Senate and Assembly and notify the legislators that the Society objected to the enactment of a bill to license "naturopaths," and to any change in the present medical law. The Society then adjourned.

The following is the provisional program for the March meeting:

1. Exhibition of New Clinical Chart, Dr. D'Arcy Power.
2. Tubercular Meningitis with Report of Three Cases, Dr. W. F. Cheney.
3. Why Should Roentgology be Practiced Only by the Physician? Dr. Lehmann.
4. Fractures of the Metatarsus With Report of Twenty-five Cases, Dr. Raymond Russ.

Santa Barbara County.

The Santa Barbara County Medical Society held its regular meeting at the Arlington Hotel, February 13, 1905. The meeting was called to order by Dr. Wm. H. Flint, President, and the following members were present, viz: Drs. Barry, Bates, Chancellor, Cunnane, Djal, Morrey, Sidebotham and Stoddard.

Dr. Flint reported an interesting case of filaria sanguinis hominis in a Chinaman successfully treated with hexamethylene-tetramin. The Essayist of the evening, Dr. Chancellor, read a paper of unusual interest, "The Treatment of Tuberculosis with Special Reference to Dietetics," which was discussed favorably by the members present. Drs. P. B. Carter of Guadalupe and F. S. Gould of Santa Barbara were elected to membership in the Society. A resolution was adopted approving of the bill requiring nurses to register, now pending in the Legislature in Sacramento. Dr. Philip S. Chancellor was elected alternate delegate.

W. B. CUNNANE, Secretary.

Shasta County.

At a regular meeting of Shasta County Medical Society held in the city hall, Redding, Cal., January 21, 1905, the following resolutions were unanimously adopted:

Resolved, That the Shasta County Medical Society hereby reaffirms and emphasizes its belief in proper vaccination as a protection against smallpox, and that it is further of the decided opinion that inoculation with pure vaccine virus, followed by cleanliness of the wound with good sanitary surroundings, is an entirely harmless and innocent measure. The Secretary is hereby instructed to furnish a copy of the above resolutions to each daily paper in Redding; also one copy to the Secretary of the California State Board of Health, and one to the Secretary of the California State Medical Society.

The Shasta County Medical Society has framed the following resolution: To the Honorable Senate and Assembly of the State of California, in Legislature Assembled:

At a meeting of the Shasta County Medical Society held in Redding, Cal., January 25, 1905, the following resolutions were unanimously adopted:

Resolved, That the Shasta County Medical Society is emphatically and unalterably opposed to Assembly Bill No. 267, repealing parts of the present medical law, which we regard as entirely satisfactory and almost ideally perfect, whose validity has recently been sustained by the highest courts of the State; and which protects the profession and the public alike from the charlatan and the quack, and excludes from practice the uneducated graduates from the mercenary and disreputable medical colleges; and substituting provisions which we regard as unfair and unjust, and a virtual repeal of the present eminently satisfactory law.

Resolved, That our representatives be hereby instructed and urged to use every possible endeavor to defeat the passage of said bill, together with all similar attempts to alter, amend or repeal the existing statute. R. F. WALLACE, Secretary.

Tuolumne County.

In response to an invitation issued by the Secretary, a number of physicians in the county met with Dr. A. W. Morton, of San Francisco, at Sonora, February 4th, and organized the Tuolumne County Medical Society. Dr. E. T. Gould was elected President and Dr. R. Innes Bromley, Vice-President. Dr. C. F. English was elected Secretary and Treasurer. Six physicians were enrolled at this meeting, but it is understood that practically all the doctors in the county will become members.

(We certainly congratulate the physicians of Tuolumne County upon their organization, and sincerely trust that this newest county society may have a long life and a useful one.)

I am sorry to confess that we have not found the micro-organism of yellow fever, although it has been assiduously searched for both in human blood known to contain it and in mosquito.—*H. R. Carter in Med. News.*

MEDICAL SOCIETIES.

The California Academy of Medicine.

Regular meeting, held January 24, 1905, the President, Dr. Dudley Tait, being in the chair.

"Operations for Carcinoma of the Breast." Dr. Dudley Tait exhibited a patient upon whom he had operated about seven years previously for adenocarcinoma of the breast. He used the Willy Meyer operation, which is essentially the same as that recently re-described by Warren. It differs from the Halsted in that the operator begins in the upper axilla and proceeds toward the breast. In this way it is possible to secure the larger vessels early in the operation and to save much time which would otherwise be lost in controlling hemorrhage.

"Acute Hodgkin's Disease." Dr. George Blumer reported a case presenting the clinical picture of acute Hodgkin's disease. The patient was a young man, 19 years old, with negative past history except that he had had an accident three months before. The disease began with progressive weakness, nausea, vomiting, and dyspnea. He had some fever in the evening with night sweats. In three months, he had lost thirty pounds in weight. A few days before death, he suffered from some pain in the liver. On examination, he showed a general enlargement of the lymphatic glands and especially of those of the neck, as well as enlargement of the spleen and liver. The heart and urine appeared to be normal. The blood showed 3,656,000 red corpuscles, 8,000 leukocytes, and 54 per cent of hemoglobin. A differential count showed 8 per cent of polymorphonuclear leukocytes, and 92 per cent of mononuclear forms, which were divided into 45 per cent of large cells and 47 per cent of small cells.

At autopsy, the lymph glands, tonsils, spleen, and liver were found to be enlarged. The lymphatic glands contained none of the large cells described by Reed as characteristic of Hodgkin's disease, and no eosinophilic cells. The lymphoid follicles of the spleen were especially enlarged. The kidneys were densely infiltrated with round cells. The bone marrow, though presenting no macroscopic changes, showed on microscopic examination a lymphoid hyperplasia.

Clinically, the patient presented the picture of an acute Hodgkin's disease, with the exception that the mononuclear cells in the blood were relatively very much in excess, whereas it seems that in true Hodgkin's no such increase should occur. Pathologically, however, the case is one of lymphatic leukemia, as shown by the changes in the bone marrow and other organs. It is a case of leukemia in which the cells did not escape in large numbers into the blood, a so-called "aleukemic leukemia." It is doubtful if a true Hodgkin's ever becomes converted into leukemia for histologically they seem to be different processes. It is possible that we shall be able to recognize such a case as this clinically as one of leukemia by the peculiar differential count.

Dr. W. F. Cheney reviewed the work of Reed, who showed that Hodgkin's disease is a pathological entity, characterized by definite histological changes in the lymphatic glands and by the negative results of inoculation experiments.

Dr. Wm. Ophüls doubted if it is possible to separate Hodgkin's disease as sharply as Reed and others have tried to do. In a recent case, he has seen the typical changes described by Reed in the lymph glands, and yet there was a round cell sarcoma of the thymus gland, which was invading neighboring structures.

Dr. P. K. Brown described a dog whose lymphatic glands gradually increased in size. At first the number of leukocytes was not increased but just before death a considerable increase took place.

Dr. Wm. Ophüls stated that he had examined specimens from Dr. Brown's dog and that they presented

the changes of leukemia rather than those of Hodgkin's.

Dr. Blumer stated that the dog apparently showed a similar condition to that of his patient, only that the former's leukocytes had increased before death, whereas the patient's had not. Possibly a differential count made in the early stages would have shown that the dog had had a leukemia.

A. W. HEWLETT, Secretary.

ARMY MEDICAL CORPS EXAMINATIONS.

Preliminary examinations for appointment of Assistant Surgeons in the Army will be held on May 1 and August 1, 1905, at points to be hereafter designated.

Permission to appear for examination can be obtained upon application to the Surgeon-General, U. S. Army, Washington, D. C., from whom full information concerning the examination can be procured. The essential requirements to securing an invitation are that the applicant shall be a citizen of the United States, shall be between 22 and 30 years of age, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training or its equivalent in practice. The examinations will be held concurrently throughout the country at points where boards can be convened. Due consideration will be given to the localities from which applications are received, in order to lessen the traveling expenses of applicants as much as possible.

In order to perfect all necessary arrangements for the examinations of May 1st, applications must be complete and in possession of the Surgeon-General on or before April 1st, and for the examination of August 1st, on or before July 1st. Early attention is therefore enjoined upon all intended applicants.

There are at present twenty vacancies in the Medical Corps of the Army.

AN OPINION FROM VIRGINIA.

"We are very much in sympathy with that excellent and high-class publication, THE CALIFORNIA STATE JOURNAL OF MEDICINE, in its severe arraignment of the *Journal of the American Medical Association* for ethical laxity, if not for its gross violation of ethics.

We are not surprised at all at the course of the A. M. A. *Journal*, for we have watched these enterprises so frequently born and launched to fill a crying need of reformation and purification of the medical profession, develop rapidly into foul-smelling pawnshops where men who should be above such nastiness put their good names "in soak" for a very small recompense and soothe their consciences with the idea that no one will openly cast a stone at such high-sounding publications.

The *Journal of the A. M. A.* was originated to make money, and it has to compete with other publications in the same field, and it is and has been for a long time a disgrace to that portion of the profession it purports to represent. We are perfectly willing to accord the *Journal* the right of conducting its business as it sees fit, and as it has an unquestioned right to do; but we are unwilling to have it competing with the rest of the world in its priestly garb when it is guilty of more heinous offenses than those who make no pretensions to the faith!

All honor to THE CALIFORNIA STATE JOURNAL OF MEDICINE for its utterances of protest against the irregularities of this journal which it is called upon to support with its allegiance and its dollars. . . . .—*The Southern Clinic* (February, 1905).

PROPRIETARY PREPARATIONS EXCLUDED FROM NORWAY.

The *Druggists' Circular* for February has a most excellent editorial on this subject. Last August, by royal proclamation, all secret remedies were excluded from Norway, and they may not even be advertised in Norwegian papers and then shipped into the country from outside. Any goods so shipped will be held up by the custom house. Any preparation may be entered and sold if the exact composition is stated on the package. In commenting upon this regulation, the *Circular* passes out some very bitter truths to the medical profession. The articles listed are mostly French, but "There are some American, and we note with satisfaction that these include not only such common medicines as 'pink pills' but likewise embrace remedies that American medical men, of a certain stripe, have been in the habit of prescribing, such as bromidia.

"The trouble with such doctors is their utter disregard for the pockets of their patients and their equal callousness regarding the interests of mankind as a whole. They are either so thoughtless that they do not see the professional sin they are guilty of or so mercenary that they do not care what interests may suffer if they can gain what they are after. The thoughtless doctor looks upon this phase of medical ethics as a useless fad and is surprised when shown that his conduct is treason of the most despicable kind. To prescribe a secret remedy of any kind is to aid and abet the enemies of medical science, and tends toward making such a science impossible. His conduct is of a kind that if practiced by all would stop medical progress absolutely, bind it in the bonds of ignorance, and work for the future destruction of myriads of human beings.

"Secrecy is a respectable cloak for falsehood, extortion, and conditions that degrade. It is darkness, pure and simple, and none love it unless their deeds require its covering.

"The secrecy that envelopes the proprietary medicine industry injures the sick, injures the public, injures the pharmacist and injures the physician."

Course of Instruction in Public Health.

The authorities of the University of Pennsylvania realize the efforts which are being made in communities throughout the country to obtain officials who have had some special training in matters pertaining to public health. Each year the demands for men of this type (either as chiefs of departments or in some subordinate position) is increased, and at the present time there is a lack of men qualified to fill such positions. To meet the needs of such instruction, the University will introduce into its curriculum, beginning October 1, 1905, a full course in public health.

Curious Law in Ohio.

Mr. Noah J. Dever, of Portsmouth, Ohio, is the author of a very interesting article published in the January number of the *Columbus Medical Journal*, on the subject of the relations of physicians to the law. We quote the following:

"Any physician who administers any poisonous drug or medicine to another while in a state of intoxication subjects himself to a fine of $100.00, and imprisonment for twenty days; **administering any secret drug to another subjects himself to the same penalty.**"

If the emphasized portion of this law were to be rigidly applied, one cannot help but wonder how many physicians in the State of Ohio would be minus $100.00 or find themselves in jail. As it is said that 80% of doctors prescribe the numerous nostrums, or secret proprietaries, Ohio might find itself compelled to get along for twenty days with but 20% of its regular quota of doctors

PUBLICATIONS.

Practical Pediatrics.—A Manual of the Medical and Surgical Diseases of Infancy and Childhood. By Dr. E. Graetzer, Editor of the "Centralblatt Für Kinderheilkunde" and the "Excerpta Medica." Authorized translation, with numerous additions and notes, by Herman B. Sheffield, M. D., Instructor in Diseases of Children, and Attending Pediatrist (O. P. D.), New York Post-Graduate Medical School and Hospital; Visiting Pediatrist to the Metropolitan Hospital and Dispensary, etc. Pages XII-544. Crown Octavo. Flexible Cloth, Round Corners. Price $3.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry St., Philadelphia.

This little work has for its object the placing in the hands of the profession a ready reference book on Pediatrics. According to the author such a book does not exist at present. The subjects seem to have been arranged alphabetically in the German edition, but this arrangement has not been adhered to in the American edition. Instead, diseases have been subdivided according to the organs which they affect, or according to their nature. The book gives in a fairly complete way a short summary of the main points in all of the important, and many of the less well-known diseases. As the size of the book requires, the account of each disease is necessarily brief. Some of the more unusual diseases, as congenital icterus with splenomegaly, idiopathic edema, and Gaucher's disease, are omitted entirely. Other more common conditions, such as the visceral complications of the erythema group of skin diseases are quite insufficiently described. Some diseases are improperly classified, as leukemia, which is placed under the diseases of the spleen. Our old friend, "scrofula," whom we thought dead long ago, is resurrected and given quite lengthy discussion. As the term is eminently inaccurate and unscientific, and describes not a single condition but a number of different conditions, we regret to see it used in a book published at the beginning of the twentieth century. The book is nicely gotten up, and is in a handy form. It will serve very well as a book for rapid reference for the student or the busy practitioner, but is not to be recommended to those who wish to drink deep in the Pierian Spring of Pediatrics.

G. B.

International Clinics.—Volume IV, 14th Series. Philadelphia. J. B. Lippincott Company.

This volume contains various articles dealing with apropos medical subjects. In the first article Professor Hayem draws deserved attention to the harm done by unwise drugging. Professor Javal follows with a short report of the good results obtained from dechloridation in the treatment of our dropsical renal patients, illustrating this with two clinical reports. Metzenbaum writes of the therapeutic effect of radium of low radio activity, hence of little cost. Parkes Weber and Watson of London have an article on chronic polycythemia with enlarged spleen, which they term Vasquez's disease and in which, postmortem, the bone marrow in some of the long bones showed a reversion to the red type. Their theory that the symptom-complex is due to increased osmotic tension of the blood, seems far-fetched, and of course remains unproven. Solis Cohen draws attention to the necessity of getting at the etiological origin of joint troubles, both from a diagnostic and therapeutic standpoint. Rudolf writes on functional heart murmurs and in his article states that bruits heard in the neck (excepting the bruit du diable and those due to aneurism) are always functional, a statement with which we cannot agree. Bradford's contribution on lateral curvature of the spine is very readable, excellently illustrated, and contains valuable therapeutic advice. Young reports an instance of nerve-anastomosis for the relief of infantile paralysis, giving the credit of suggesting the proceeding for this condition to Spiller. Lane writes of the advantage of short circuiting the colon in the operative treatment of chronic constipation in his usual interesting style. Gastric surgery, Glenard's disease, postblemactene hemorrhages all have contributions devoted to their consideration. Warthen reviews recent pathological work in infectious diseases, and Craig of San Francisco writes the last and longest article in the book—an article well illustrated, and well worth reading—on etiology and pathology of Anebrobic Infection of the Intestine and Liver.

C. M. C.

A Manual of Electro-Static Modes of Application, Therapeutics, Radiotherapy and Radiography.—Third edition. By Wm. Benham Snow. New York, A. L. Chatterton & Co.

This book, of about 300 pages, is readable, and well printed. The various static modalities are explained in a way easy to understand, and the good results claimed for such treatment recorded in a judicial manner. The static machine and coil as producers of the X-ray are discussed and the respective advantages and disadvantages intelligently weighed. Radiotherapy is referred to in conjunction with the various diseases for which such treatment has been practiced. The book is not rendered bulky by the insertion of unnecessary clinical reports. Little is said about the X-ray and its uses in purely medical work, but taking the book as a whole, it will serve as an introduction to the study of the subjects of which it treats.

Politics in New Zealand.—By Frank Parsons and C. F. Taylor. Published by C. F. Taylor, Philadelphia. Price 25 cents.

Dr. Taylor has condensed a good deal of matter from a much more pretentious work into this monograph with the hope that it will have a wider circulation and that interest in the scheme of politics in New Zealand may in this way be aroused. The monograph seems to give the main features of the political economy of New Zealand in concise form and will probably be of interest to those who are interested in the subject. It would certainly be well if more physicians could be induced to take an interest in politics, but it seems well-nigh hopeless.

Transactions of the following State Associations have been received: Alabama, 1904; New Hampshire, 1904; South Dakota, 1903 and 1904, and Texas, 1904.

A big association like that of Texas, with 2,393 members, certainly ought to abandon the antiquated custom of printing its transactions in an annual volume, and publish them in the form of a monthly journal.

Inaugural Address of the President of the New York County Medical Association.—By Francis J. Quinlan, M. D.

Medical and Surgical Report of St. Luke's Hospital for the year ending September 30, 1904. Chicago.

Biennial Report of the Department of Public Health of San Francisco, Calif. from 1898 to 1903.

Anti-Tuberculosis League.

The next meeting of the American Anti-Tuberculosis League will be held in Atlanta, Ga., April 17 to 19, 1905. Governor J. M. Terrell has tendered the Hall of the House of Representatives of the Georgia State Capitol for the use of the League during the meeting. The opening session is intended to be a broad one, in an educational sense, and the heads of the largest educational institutions of the United States will be invited to be present. Reduced rates will be had on all roads. Hotel rates will also be made special for visitors. Over 1000 delegates representing the leading National and State Medical Societies have been enrolled.

A NEW JOURNAL.

Dr. Martin Cooley of Savannah, Ga., has started a new journal under the title of *"The Georgia Practician."* It is well gotten up, printed in a business-like way and the editorials are refreshingly above the average. Dr. Cooley expresses himself remarkably well, and we are very glad indeed to see that he objects to the frightful mishandling of good English so common in medical talking and writing. In regard to the policy of the Journal, he says:

"Our advertising shall be strictly ethical, and absolutely confined to our advertising pages. No advertiser will buy his way into our reading-matter pages. The profession is being educated to this disgraceful and too prevalent practice, and are properly casting out these subsidized sheets; and the time is not far distant when the advertisers who practice these methods will see their folly as evidenced in the alienation of the patronage of the intelligent, and therefore the largest practicians of the country."

We sincerely hope that *"The Georgia Practician"* will stick to a policy of strictly ethical advertising, and we also sincerely trust that the definition of "ethical" will not be reconstructed by the editorial management of *The Practician.*

REGISTER CHANGES.

These members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) from the Register information as published. Hereafter each issue of the JOURNAL will contain the changes received from the 15th to the 15th.

Allan, Robt. T., from Redlands, San Bernardino Co., to 90 Walmer Road, Toronto, Canada. **Armstrong, Maurice M.,** from 418 Crocker st. to 624 E. Fifth st., Los Angeles. Hours: 1-4 P. M. **Ashby, R. H.,** from 1278 Fulton st. to The Hart, 750 Ellis st., S. F. Hours: 1:30-3:30 and 7-8 P. M.

Banks, A. E., from add. unknown to Grant Bldg., Seventh and Market sts., S. F. **Bewley, Marietta H.,** from 1215 East st. to Braly Bldg., Los Angeles. Boone, Reunette E., from 1409 Fourth st., Santa Rosa, to Reunette, E. Boone-Hughes (retired from practice), Sebastopol. Bothe, A. C., from 868 Schrader st. to 562 Clayton st. Hours: 2-4 and 6-7 P. M. **Bowerman, A. C.,** from Brentwood to Dinuba, Tulare Co. **Brown, Newell J.,** from Los Angeles to 423½ S. Spring St., Los Angeles. Hours: 9 A. M. to 4 P. M. **Bullard, Frank D.,** from 304 S. Broadway to Bradbury Bldg., Los Angeles. **Byron, A. E.,** from add. unknown to Forrestville, Sonoma Co.

Campbell, C. G., from add. unknown to 360 F st., San Bernardino. Campbell, Merritt B., from Los Angeles to 403-405 Mason Bldg., Los Angeles. Hours: 10 A. M. to 12 M. and 1:30-4 P. M. **Case, C. L.,** from Ramona, San Diego Co., to 1849 Dwinelle st., Oakland. **Christianson, H. B.,** from Santa Cruz to Salinas, Monterey Co. **Clark, Wm. D.,** from 2554 California st. to 643 Sutter st., San Francisco. Hours: 2-4 and 7:30-8 P. M. **Clark, W. S.,** from 1135 Polk st. to 48 Portola st., S. F. (not in practice). Clifford, J. Bruce, from 322½ Third st., S. F., to Hopkins Blk., Santa Barbara. **Colburn, John R.,** from Wilcox Blk. to 510 Trust Bldg., Los Angeles. **Condit, Joseph D.,** from add. unknown to Pasadena, Los Angeles Co. **Conrad, D. A.,** from 723½ State st., to 1302 State st., Santa Barbara. Conrad, A. O., from 454 S. Spring st., Los Angeles, to 1302 State st., Santa Barbara. Hours: 11 A. M. to 12 M. and 1:30-3 P. M. **Corwin, Guy P.,** from Pomona to San Dimas, Los Angeles Co. **Curtis, Ralph G.,** from St. Luke's Hosp., S. F. to Olao, Hawaii, H. I.

Dillon, Edward T., from Douglas Bldg. to 614 Pacific Electric Bldg., Los Angeles. **Dozier, Barton,** from 307 S. Broadway to Grant Bldg., Los Angeles. **Dunsmoer, Nannie C.,** from 233½ N. Grand ave. to Laughlin Bldg., Los Angeles. **Durfee, R. B.,** from 647 S. Grand ave. to 306 Laughlin Bldg., Los Angeles.

English, Chas. F., from 2417 Howard st., S. F., to Sonora, Tuolumne Co. Enloe, N. T., Chico, Butte Co. Missouri Med. Coll., Mo., '95 (instead of '82). (C) '01.

Freyermuth, O. G., from 406 Sutter st. to 1149 Guerrero st., S. F.

Galbraith, A. M., from San Lucas, Monterey Co., to Haywards, Alameda Co. Hours: 10 A. M. to 12 M. Goodrich, Edwin G., from 430 College st. to 3897 Maple ave., Los Angeles. Hours: 12 M. to 2:30 P. M. Graham, A. R., from add. unknown to 652 Western ave., Petaluma, Sonoma Co. Hours: 9 A. M. to 12 M., 2-4 and 7-8 P. M.

Harris, B. Y., from Eureka to Grant Bldg., San Francisco. **Harris, Ross Allen,** from 623 Bonnie Brae st. to Douglas Bldg., Los Angeles. Howe, Robert C., from 659 Clay st. to 132 Fillmore st., S. F. Hours: 2-4 and 7-8 P. M. **Hicks, Wm. T.,** from Knoxville, Napa Co., to New Indria, San Benito Co.

Johnson, Milbank, from 303 Johnson Bldg. to 360 Westlake ave., Los Angeles.

Kobicke, Sophie B., from 1025 Sutter st. to Starr King Bldg., S. F. **Kurtz, Joseph,** from 1801 Toberman st. to Douglas Bldg., Los Angeles.

Lehman, G. M. W. from add. unknown to Pavia Bldg., 643 Sutter st., S. F. **Leonard, Ethel L.,** from 4900 Pasadena ave. to Braly Bldg., Los Angeles. **Liverman, J. R.,** from add. unknown to San Bernardino. **Lonigo, Emil V.,** from Jackson, Amador Co., to 503 Montgomery ave., S. F. Lustig, D. D., from 6 Eddy st. to James Flood Bldg., S. F.

Mather, S. R., from 421 Powell st. to Starr King Bldg., S. F. **McKinnon, A. J.,** from Ninth and J sts. to 829 J st., Sacramento. **McLean, A. D.,** from 123 Ellis st. to 374 James Flood Bldg., S. F. **Millar, C. F.,** from 713 Market st. to Majestic Bldg., S. F. **Molgaard, Jens,** Salinas, gone to Europe for a year. **Motheral, R.,** from add. unknown to Laton, Fresno Co. **Musgrove, Thos. W.,** from Chico, Butte Co., to Sultan, Snohomish Co., Wash.

Pierce, Chas. W., from 315 W. Sixth st. to Pacific Electric Bldg, Los Angeles.

Rankin, Caroline W., from 319 Ave. 31 to Braly Bldg., Los Angeles. **Read, J. M.,** from 415 Van Ness ave. to 369 Sutter st., S. F. Hours: 1:30-4 and 7-8 P. M. **Reiche, Cecilia,** from 1717 E. Ninth st. to Pacific Electric Bldg., Los Angeles. **Richter, Louise M.,** from Garvanza to 317-319 Grant Bldg., Los Angeles. **Rogers, Lincoln,** from Douglas Bldg., to Braly Bldg., Los Angeles. **Rucker, H. N.,** from Merced to Decoto, Alameda Co.

Sewall, E. C., from 708 Market st. to James Flood Bldg., S. F. **Shields, Lillian,** from 1132 E. Twentieth st., East Oakland, to Fabiola Hosp., cor. Moss and Broadway, Oakland. **Shorb, J. de Barth,** from 224 Bullard Blk. to Hellman Bldg., Los Angeles. Hours: 11:30 A. M. to 12:30 and 2-4 P. M. **Smalley, Clifford A.,** from add.unknown to 1024 W. Twenty-third st., Los Angeles. **Stephens, W. B.** from 231 Post st. to 406 Sutter st., S. F. Hours: 10 A. M. to 1 P. M. **Sweet, Earl,** from 757 Burlington ave. to 622 Trust Bldg., Los Angeles. Sykes, M. E., from 202½ S. Broadway to 423½ S. Spring st., Los Angeles. Hours 10 A. M. to 12 M., 1:30-4 and 7-9 P. M.

Teaby, W. L., Ordway Blk., Monterey. Hours: 8:45-9:45 A. M. and 1-4 P. M.; Hotel Del Monte, hours: 10 A. M. to 12 M. and 8-9 P. M. Tyler, J. A., from Anaheim, Orange Co., to Lower Lake, Lake Co.

Van Slyck, David B., from 247 to 307 E. Colorado st., Pasadena.

Wagner Henry W., from 100 Eighth st. to 1008 Eighth st., Sacramento. Woodbridge, Bradford, from 529 Twenty-third st., Oakland, to Rocklin, Placer Co.

New Names.

Chakijian, H. K., 1150 Central ave., Los Angeles. Cleveland Coll. P. & S., Ohio '97. (C.) '00. (Name changed by Superior Court, June 5, 1903, from H. K. Chakijian to Henry Gregory Emerson).

Davy, R. B., 369 Sutter st., S. F. Jefferson Med. Coll., Pa., '68. (C) '87.

McMurtry, M., Clovis. Med. Dept. Univ. of Mo., '04. (C) '04. Morong, Frederic L., Pinogrande, El Dorado Co. Med. Dept. U. of C., '01. (C) '01. Mules, J. H., East Auburn. Cooper Med. Coll., '04. (C) '04.

Park, K. C. (H), Porter Bldg., San Jose. Hahn. Med. Coll. '99. (C) '01. Hours: 11 A. M. to 12 M. and 2-5 P. M.

Speicher, A. F., 3005 Vermont ave., Los Angeles. Jefferson Coll. P. & S., N. Y., '81. (C) '99. Hours: 10 A. M. to 1 P. M. and 6-7:30 P. M.

Woodruff, Wm. L. (H), Long Beach. Hahn. Med. Coll., Philadelphia, Pa., '82. (C) '00.

New Members.

Aiken, Chas. R., Tuolumne Co. Med. Soc.

Bates, Homer O., Los Angeles Co. Med. Soc.; Blythe, Thomas Moore, San Bernardino Co. Med. Soc.; Blue, Rupert, San Francisco Co. Med. Soc.; Bock, Chas., Los Angeles Co. Med. Soc.; Bromley, R. Innis, Tuolumne Co. Med. Soc.

Condit, J. D., Los Angeles Co. Med. Soc.; Craig, Thornton, Yolo Co. Med. Soc.; Craycroft, H. J., Crawford, W. F., Fresno Co. Med. Soc.

Donnell, Theophilus C., Los Angeles Co. Med. Soc.

Fletcher, Henry D., Placer Co. Med. Soc.; Frick, Donald J., Los Angeles Co. Med. Soc.; Fricke, Richard, San Francisco Co. Med. Soc.

Goodspeed, I. R., San Mateo Co. Med. Soc.; Gould, E. T., Tuolumne Co. Med. Soc.

Hamman, Amos F., Hastreiter, R. F., Los Angeles Co. Med. Soc.; Hely, Levi St. J., Fresno Co. Med. Soc.; Hicks, Wm. T., San Benito Co. Med. Soc.; Hood, W. L., Tuolumne Co. Med. Soc.; Hull, Philo, Butte Co. Med. Soc.

Ide, Charles E., San Bernardino Co. Med. Soc.

Johnson, W. B., Butte Co. Med. Soc.

Keck, John, Marin Co. Med. Soc.; Keys, Ernest M., Koford, H., Alameda Co. Med. Soc.

Lehman, M. W., Lennon, Milton B., San Francisco Co. Med. Soc.

Mackay, J. G., Placer Co. Med. Soc.; Mattison, Samuel J., Los Angeles Co. Med. Soc.; Maxson, Harriet S., Alameda Co. Med. Soc.; McMurtry, Milton, Motheral, R., Fresno Co. Med. Soc.; Moore, Fred H., San Bernardino Co. Med. Soc.; Mules, J. H., Placer Co. Med. Soc.

Norris, Wm. L., San Mateo Co. Med. Soc.

Shelton, Alva H., Smalley, Clifford A., Speicher, A. F., Los Angeles Co. Med. Soc.

Thompson, L. L., Butte Co. Med. Soc.; Toner, J. M., San Francisco Co. Med. Soc.

Westerberg, Frederick, San Francisco Co. Med. Soc.

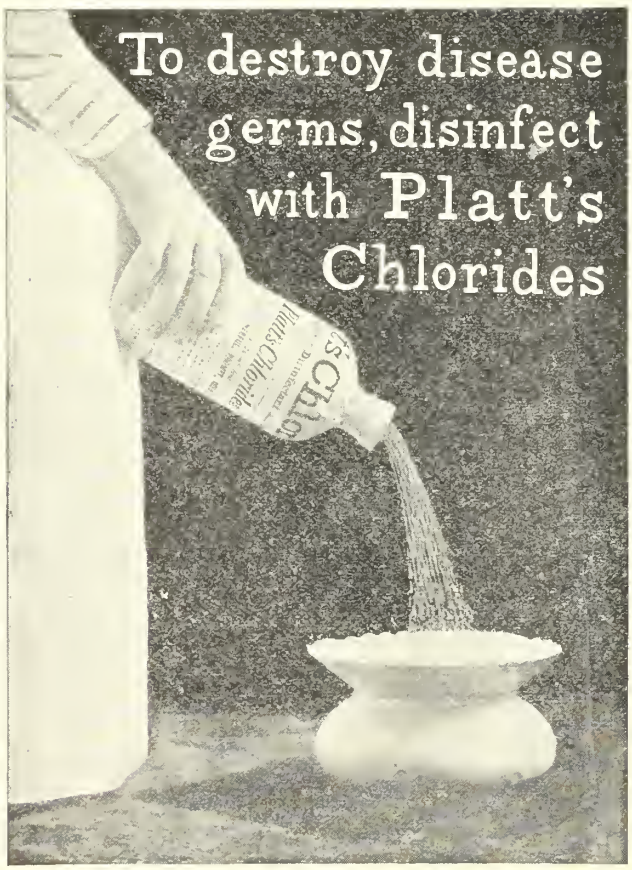
Deaths.

Hamilton, Harry Lewis, Chico.
Hildebrand, J. L., Oakland.
Ward, W. D. F., Santa Rosa.

Add. Unknown—Letters Returned.

Davis, Alex., Los Angeles.
Johnson, H. A., San Francisco.
Kirk, J. M., Pasadena.
LaMoore, De W., Los Angeles.
Miller, Jas. A., Oakland.
Messenger, O. G., Los Angeles.
Sheffield, H. W., Los Angeles.
Tefft, H. K., Los Angeles.

Dr. William P. Harvey of San Francisco was married to Miss Letta R. Gallatin, Wednesday, February 1st.



IN an address on Pulmonary Tuberculosis read at the State Medical Association, Waco, Texas, Professor David R. Fly, A.M., M.D., stated: "The chief medium of contagion is the atmosphere impregnated with dry particles of sputum expectorated upon sidewalks, flooring, bed or clothes, etc. It is obvious, then, that those engaged in making beds, sweeping and dusting rooms occupied by tuberculous patients, are most exposed. This danger, however, can be materially lessened by sprinkling the rooms with a solution of Platt's Chlorides, one part to ten of water."

The cuspidor should be washed out daily with boiling water, and a mixture of one part Platt's Chlorides and four of water kept constantly in it to receive the sputum. The patient's clothing should be kept by itself, and thoroughly boiled when washed.

FORMULA—A combination of the saturated solutions of Chloride Salts proportioned as follows: Zn 40 per cent., Pb 20 per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent. K 5 per cent.

California State Journal of Medicine.

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PHILIP MILLS JONES, M. D., Secretary and Editor

PUBLICATION COMMITTEE

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ADDRESS ALL COMMUNICATIONS

Secretary State Society, - - } Office Room 1, Y. M. C. A. Bldg., San Francisco.
State Journal, - - - }
Official Register, - - - }

Telephone, Main 1560.

IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

APRIL, 1905.

NOTICE!

To Riverside, one and one-third fare for the round trip. Be sure and get a receipt certificate when you buy your going ticket. Receipt certificates will be issued with going tickets 15 days before the date of the meeting. Meeting at The New Glenwood Hotel, Riverside, April 18th to 20th.

EDITORIAL NOTES.

THANK GOD!

With the deepest and most profound reverence, one may well say, Thank God! The Legislature has adjourned *sine die!* Fortunately, no harm has been done so far as the relations of the physician to the public are concerned, and the standards required for eligibility to practice medicine within the state remain unchanged. The more than dangerous antivaccination bill, which was passed by both houses, was vetoed by the Governor, of course. Assembly Bill No. 267, which amended the present medical law practically out of existence, came to a vote after third reading on March 7th, and was defeated by 43 to 14, from which it would appear that the measure really had few friends in the house. Assembly Bill No. 1164, which amended the same law in the section defining the practice of medicine in such a way as to permit any pharmacist to practice medicine or surgery, was, on the same day, refused passage by a vote of 13 to 34. The two bills representing the very acme of superlative legislative assininity, the bills creating a board of examiners of "naturopathy" (?), died on the file; had they come to a vote they would have been snowed under even deeper than No. 267. It has been rumored that several of these and similar "foolish bills," were introduced with the hope of passing them up to the Governor, knowing that he would have to veto them and thus make a few enemies who would oppose a second term. Whether this rumor is anything more than idle words, we do not know; but he has been spared the necessity. For all of these things let us be thankful, and for that we do not have to be watchful for another two years, let us unite in saying, Thank God! The Legislature has adjourned! (But what an ironical commentary on the venality of the men we elect to frame our laws!)

THE A. M. A. MEETING.

As probably every member of the Society knows, the next meeting of the American Medical Association will be held in Portland, July 11th to 14th. We understand that a large number of California physicians are planning to attend this meeting, and to them we would suggest that they do not delay in the matter of securing accommodations. Address Dr. Kenneth A. J. McKenzie, Portland, Oregon.

Many members of the A. M. A. in the East will attend and to them we would suggest that they do not return without coming South and visiting their friends in California—the garden spot of the United States. The hospitality of the Californian has long since passed into a proverb and we feel that it is almost superfluous to lay stress upon the fact that we will be more than glad to welcome the whole association, collectively and individually, and show them as much of our glorious State as they have time to see. Nowhere will they find such a magnificant chain of all-the-year-round resorts as are to be met with here, from Shasta in the north to Coronado in the south. Gentlemen, when you leave Portland for your homeward journey, come southward and visit us; you will be more than well repaid for your trip.

BOARDS OF EXAMINERS.

The President of the American Academy of Medicine, Dr. John B. Roberts, made a masterly presentation of certain very pertinent things connected with "The Doctor's Duty to the State," in his address at the last meeting. In this issue the JOURNAL takes the liberty of quoting some paragraphs from this address, and begs to emphasize the fact that Dr. Roberts' opinion is well worth very careful and serious consideration. Doubtless there never was and never will be a state board of medical examiners that will not receive criticism, due either to its rigid enforcement of the laws under which it operates or to the character and scope of the examinations. In the very nature of things, no police measure can ever be rightly administered without interfering with some individuals, who will clamorously object and no doubt enlist the cooperation of those whose sympathies may be easily roused. There are always many persons whose sympathy can be readily worked upon. Witness the fact that no

matter how dastardly the crime may have been, individuals can always be found who will sign a petition praying for the pardon of the murderer. Clear-thinking, public spirited citizens who are not of a romantic turn of mind, ask only that proper police laws be enforced; and, in the main, they are enforced. Our own board of examiners is in no different case than the boards of other states where the laws have been conscientiously carried out. Mistakes undoubtedly have been and will be made so long as merely fallible men are available for examiners; even supreme courts have been known to reverse their own decisions, thus indicating previous error. Nearly four years have shown us, however, that California has a pretty good law and that its rigid application has worked beneficially upon the medical life of the state. Let us bear these facts well in mind and see to it that only men of the greatest probity are elected to our examining board; only men who cannot in any way be influenced to depart in the slightest degree from the wise provisions of an excellent law. Time will sufficiently demonstrate the wisdom of there being no "special cases;" of the un-wisdom of allowing sympathy to bias good, calm judgment.

THE CANAL COMMISSION.

Dr. C. A. L. Reed, of Cincinnati, has recently returned from his trip of inspection to the "Canal Zone" and has submitted his report, which appears in full in the *Journal of the A. M. A.*, March 11th, 1905. His findings are about what might have been expected with official incompetence and egotism at the top, holding down unquestioned ability and preventing the introduction of reform measures of paramount importance. A man by the name of Grunsky, not entirely unknown to Californians (!), was appointed or in some way became, a committee on sanitation. Mr. Grunsky is a very small man, speaking cerebrally, and the amount of authority he seems to have arrogated to himself and the amount of superfluous red tape with which he has enwrapped everything pertaining to his official position, so hampered the medical staff under the charge of no less a man than Col. Gorgas, that it was four or five months before the medical department could do anything to check the spread of yellow fever. Those conversant with conditions on the Isthmus of Panama know full well that the building of the canal, stupendous engineering problem though it is, does not depend so much upon the engineers who have charge of the construction, as upon the success with which the unsanitary conditions are remedied. It was not so much the Chagris River that defeated the French company in its efforts, as it was the little mosquito, carrying yellow fever and estivoautumnal malaria from victim to victim. In Cuba, Col. Gorgas has shown what he can do to put to rout these pests, if he is given a free hand. To trammel and tie down such a man when the issue is one of thousands of lives and millions on millions of dollars—not to speak of the reputation of a country and its president, is worse than criminal—it is foolish. But what better could have been expected from a hydra-headed Canal Commission, each member so pride-swollen that his own importance sinks mere details of sanitation into insignificance? By all means, Mr. Roosevelt, do away with your foolish "commission," and let the men who have the brains and the ability dig the ditch.

MEETING AT RIVERSIDE.

On page 105, will be found a general outline of the program for the next meeting of the Society, at the New Glenwood Hotel, Riverside, Tuesday, Wednesday and Thursday, April 18th to 20th. On Monday, the 17th, there will be held, at the same place, a meeting of the California Public Health Association, composed of all health officers of the state, and a very good program has been arranged. At the time of writing we have not received a copy of the program, but if it reaches us in time it will be printed elsewhere in the JOURNAL. The Committee of Arrangements of the Riverside County Medical Society has done excellent work and no effort will be spared to make this visit of our Society to that beautiful section of the state, a most enjoyable and memorable one. "The wives of the Riverside physicians have arranged to entertain the visiting ladies, at afternoon tea on Tuesday, in order that all may become acquainted, and all members are earnestly invited to bring their wives." The rooms of both the Rubidoux and the Victoria Clubs will be at the disposal of visiting physicians. From present indications there will be a large attendance and an unusually good meeting.

LAWSON AND THE SYSTEM.

We, who follow the peaceful healing art, may be rather inclined to read from a distance the story which Lawson is telling of the inner workings of that association of piratical thieves dubbed the "Standard Oil System," and regard it only with passing interest; as of something remote from our life's sphere. Not so. During the Spanish war an army hospital was established at one of the camps in the South, and in it were many victims of official incompetence,—soldiers sick unto death from preventable diseases. The hospital was lighted only by means of oil lamps, and the weather was insufferably hot. Added to the distress and pain of unnecessary illness and the excessively warm weather, was the discomfort of hot, malodorous lamps at night. And this in spite of the fact that electric wires were run up to the very gates and that the whole place could have been readily and quickly wired, electric lights substituted for the stinking oil lamps, and one discomfort removed. Why was it not done? Because the "Standard Oil" influence in Washington was sufficient to prevent it; because the "System" wanted to sell more oil

and make a few more dollars, heeding neither the comfort nor the lives of the American soldiers who lay sick unto death. Are the operations of the "System" so remote from our field of activity, after all? Are we always going to "stand for" any sort of imposition, corruption, injustice, exploitation? Will we never have courage to demand and strength to secure simple honesty as a substitute for graft?

IGNORANT CANDIDATES.

Through the courtesy of the Board of Examiners we are able to present for your consideration a couple of examination papers (public records) handed in by graduates of a local medical school. The spelling is carefully reproduced, and bears evidence of the general illiteracy of the would-be physicians. Bacteriology and pathology are kindred branches and one should be reasonably justified in assuming that the degree of knowledge exhibited by an individual in one branch, would be a safe indication of his probable knowledge in the other. Candidate "A" received 93% in bacteriology and but 11+% in pathology; candidate "B" received 86% in the former branch and 11% in the latter. The papers in bacteriology show a truly wonderful similarity in the matter and form of the answers, and even a casual examination of them reveals strong presumptive evidence of collusion between all the applicants from the school referred to, if not, indeed, of definite ante-examination knowledge of what the questions in bacteriology were to be. The examination in this subject was conducted by one of their own professors and the rumor was current at the time that the students themselves made up the examination questions. Comment seems rather superfluous.

TUBERCULOSIS SANATORIUM.

The bill to establish a state sanatorium for the treatment of curable cases of tuberculosis, had a curious history. It was drawn in conference between the Tuberculosis Committee of our Society and a committee of the California Club, of San Francisco. A delegation of our committee went to Sacramento to see the Governor and also to have the bill introduced. The Governor objected to the proposed measure on the ground that the state could not afford to expend the money called for—$150,000. The delegation was disheartened and returned to San Francisco where it attended a meeting of the directors of the Merchants' Association and discussed the matter. These gentlemen advised that the bill be introduced in spite of the Governor's objection, and that every effort be made to pass it; this for the reason that they recognized it to be not only a wise measure, but a very good and sound business proposition. It was, subsequently, introduced into both houses; in the senate by Ralston, where it became No. 706; in the assembly by Drew, No. 867. In both houses it was considered by two committees: "Public Health and Quarantine" and "Finance" and in each case was reported with the recommendation that it "do not pass." Yet it passed the senate on March 4th without an opposing vote and the assembly on March 9th with but 6 opposing votes. Whether or not it will eventually be approved by the Governor and become a law, it is impossible to say at the time of writing, though there is some reason to hope that this will be the case. The special committee of the California Club, of which Mrs. Sydney Palmer is chairman, has worked very hard in the interests of this bill; its successful passage is largely due to her efforts.

[P. S. At the expiration of the time limit the Governor had not signed the Tuberculosis Sanatorium bill, and it is consequently dead. California could afford to spend $365,625 for "tinkering" up the State Capitol, but did not have $150,000 for a tuberculosis sanatorium.]

MEDICAL EXAMINERS.

A very important question has been considered by the State Board of Medical Examiners during the past year. Considerable legal advice has been taken and there seems to be no reason to doubt the soundness of the decision reached. It is in regard to the status of "Alternates," the question being as to whether or not alternates can serve as substitute examiners in the absence of the regularly elected members of the board. Without dissent, the legal opinions taken are to the effect that an alternate has no standing whatever, nor can he serve as a substitute for an examiner at an examination. In the event of the death or resignation of a regularly elected examiner, an alternate is to be chosen to fill his place. This fact should be carefully remembered by the House of Delegates at the coming meeting, when the members of the board for the ensuing year are to be elected, and only such members as will faithfully attend the sessions and do their duty, should be elected examiners. It is true that service on the board as an examiner is not a particularly pleasant nor grateful job, but none the less is it necessary, if we are to secure for the public that protection which is its right, that only the best men should be elected to perform this duty.

THE FRIENDLY (?) DRUGGISTS.

Assembly Bill No. 1164, an amendment to the medical practice act which, if it could have been enacted, would allow any pharmacist in the state to practice medicine and surgery, was introduced at the instigation of the local representatives of an association known as the National Association of Retail Druggists, or the "N. A. R. D." This fact is just learned from the publication of the association, "*N. A. R. D. Notes,*" which closes its rather boastful article with the following sentence: "We commend this bill to the consideration of the druggists of every state that have legislative fights on their hands and counsel them that at times it is wise and necessary to 'fight fire with fire.'" In this instance the "fire" that needed fighting was a vicious bill introduced by Cleveland, providing

that the druggist could not sell any medicine of any sort without a physician's prescription. At the top of the article is a rather unusually poor cartoon depicting a corpulent doctor labelled "Dr. Trust," and an emaciated druggist refusing to sell a corn plaster to a child. Great credit for defeating the passage of this bill and for introducing, or having introduced the amendment to the medical practice act before referred to (A. B. No. 1164), is given to the N. A. R. D. representative in California; a man who seems to bear the rather appropriate name of Cheatham.

The STATE JOURNAL has done more to support and stand up for the pharmacist during the past two years than any other medical journal in the United States. We have never hesitated to speak out the truth and place the blame for some present evils in the drug business just where it belongs. Mr. Cheatham could have satisfied himself in 15 minutes that the State Society had nothing to do with the Cleveland bill, that in the opinion of those who had investigated the matter it was not a good bill, and that the medical men of the state, or a goodly majority of them at least, would have aided in trying to defeat it. But this he did not do, so far as we are aware. Instead, he very foolishly had introduced an amendment to the medical practice act which was bad on its face and which he could not by any possible means have lobbied through the legislature.

It certainly seems well for every member of the Society and every physician in the state to think this matter over carefully. Do the pharmacists through their association intend to repay us for what we are trying to do for them by impertinently meddling with what is none of their business? In the January number of the JOURNAL we published a letter from an official of the N. A. R. D. in which occurs the following: "It may be of interest to your readers to know that our organization department is making converts daily among physicians and druggists to the association's 'give and take' plan that is so effectually uniting the two professions in bonds of personal and professional unity and good will." Let us consider whether the impertinent and foolish efforts of this N. A. R. D. to amend the medical practice act is evidence of this "give and take" principle of "good will" that is supposed to work for unity. If, by *encouraging* the druggist we are going to aid and abet him in this sort of meddlesome assininity, let us by all means *discourage* him; let us establish our own drug stores and see to it that they are run decently and in a professional and ethical manner. Take it all in all, there has seldom appeared in print a more offensively impertinent article than the one here referred to; it is a direct slap in the face of every decent physician and particularly the members of our Society who have secured the present medical law and have fought for its unaltered retention on the statute books. Just think this thing over carefully and then let your druggist know your views.

HAVE WE WON THE FIGHT?

The JOURNAL takes considerable pleasure in publishing, on page 103, the full statement of a newly organized "Council on Pharmacy and Chemistry" of the American Medical Association. This statement was published in the *Journal A. M. A.* for March 4th, together with a long editorial on the subject. The editorial said just about what had been said editorially five years ago (*Journal A. M. A.* May 18th, 1900) and in addition acknowledged that the *Journal* had not followed the rule then adopted. Of course the very idea that the criticisms published in your JOURNAL may have had anything to do with this latest action of the Trustees of the A. M. A., is not to be found in the editorial; that would be a degree of broadmindedness hardly to be expected, under the circumstances; the child seldom kisses the hand that spanks it. But your Publication Committee has known for some time that such a move was contemplated. In a letter from a friend in New York, very recently received, appeared the following sentences, which we beg permission to quote: "I do not know how far you are acquainted with what is going on below the surface in the American Medical Association. I am myself not in a position to get very much information, but I know enough to be able to tell you positively that you are not going to win in your fight for the purification of the advertising pages of the *Journal of the A. M. A.—for the good and sufficient reason that you have won it already!* I was delighted to learn last night that the special committee having that matter in charge are about ready with a report (which is certain to be adopted) which, while it may not cover all details that you favor, adopts the whole of the main situation, and means that the Augean stables are to be cleaned.* * * Another interesting conversation last week, revealed to me that the advertising departments of other journals than the one named above are scurrying about in some dismay as to how they are to be affected. * * * They are on the defensive in a losing fight. But it is for the purity of the medical profession, and to get a national association that a decent man need not be ashamed to belong to." The report of the committee to which our correspondent refers is that already indicated and will be found on page 103.

The work and the objects outlined by the Council on Pharmacy and Chemistry are desirable and in the highest degree commendable. We sincerely congratulate the Trustees upon their action. But is the proposed book to be the cemetery of information, and is it intended that the formulas of mixtures shall not be printed with the advertisements concerning them? If this is to be the case, the whole thing is a trick and a subterfuge unworthy of any honest man. Let us read Rule 1: "No article will be admitted unless its active medicinal ingredients and the amounts of such ingredients in a given quantity of the article, be furnished for publication."? Publication, where? In the proposed book, which is some day to be

issued? Or, as in accordance with the three times enacted rule, with each and every insertion of the advertisement of such article? There is the "joker." The rules of the new Council are but extensions of the rules of previous enactment; good rules, beyond a doubt, if carried out. But let us not be too sanguine; let us carefully watch the course of events and see whether the *Journal A. M. A.* lives up to these rules any more closely than it has to past rules. At the present time about half of the advertisements in each issue do not conform to the rule of 1895, 1900 and 1904, nor to the new rules of the Council. For 10 years there has been no perceptible indication of an honest desire to have the advertising pages conform to these rules or to any rules, save the commercial one of prompt payment of bills. If the time has arrived when there is to be made such an honest effort, we venture to say that nowhere in this country will there be greater rejoicing than right here in California; and particularly in the Publication Committee. But let us not rejoice prematurely; let us wait and see what will really happen.

AMERICAN MEDICAL ASSOCIATION. COUNCIL ON PHARMACY AND CHEMISTRY.

Chicago, Feb. 28, 1905.

To the Manufacturing Pharmacists and Chemists of the United States and to Others Concerned:—As the culmination of plans which have been under consideration for the past two years, the Board of Trustees at a meeting held Feb. 3, 1905, created by resolution an advisory board to be known as the Council on Pharmacy and Chemistry of the American Medical Association. The organization of the Council was perfected at Pittsburg, Pa., Feb. 11, 1905, and it herewith presents the following statement:

Preliminary Announcement.

It is the immediate purpose of the Council to examine into the composition and status of the various medicinal preparations that are offered to physicians, and which are not included in the United States Pharmacopeia, or in other standard text-books or formularies. These preparations will include the synthetic chemical compounds, as well as the so-called proprietaries and pharmaceutical specialties put out under trademarked names. Preparations which conform to the standard established by the ten rules governing the matter, will be incorporated in "New and Non-Official Remedies," a book to be published by the Journal of the American Medical Association.

The general need of an accessible, authoritative work of reference of this character is obvious, for at present there is no such book to which the physician can refer. Its value will be proportional to its completeness. It is, therefore, proposed to be as liberal in approving articles for the book as is consistent with justice and equity to the public, to the manufacturing pharmacist and chemist and to the physician. The acceptance of articles will be determined by the appended rules, an examination of which will show that they are sufficiently liberal to permit the admission of all articles offered to the medical profession that are honestly made, ethically exploited, and worthy of patronage by intelligent physicians.

The acceptance of an article will be based on a careful and unprejudiced examination of the accessible information from all sources, and in compliance with the adopted rules. An acceptance, however, is not to be interpreted as an endorsement, neither is omission from the list to be construed, in every case, as condemning an article; it may mean that the necessary information has not been obtained. The Council does not pass judgment on the therapeutic value, but on the ethical status only. The Council does not presume to dictate what preparations should be prescribed; nor is it the present intention to conduct an active campaign against fraudulent products; but merely *to supply necessary and desirable information concerning those which it considers unobjectionable.*

The plan for the work is briefly as follows: All available information regarding a product will be secured from the manufacturer and from other sources. This information, together with specimens of the article, will be submitted to a committee of experts, who will examine critically into the product, consider the claims made for it, and make a report. On the basis of this report, the Council will accept, reject, or hold for further consideration. If accepted, the information will be condensed and arranged somewhat on the plan of the United States Pharmacopeia, but with the addition of brief pharmacologic and therapeutic data. The Council believes that there are many articles, at present not recognized by the Pharmacopeia, which comply with the required standard and do not need any further investigation. In this class come many of the synthetics as well as many well-known pharmaceutical specialties. These are now being written up and it is proposed to issue the first edition of the book as soon as possible. No charge will be made for representation in the book.

As fast as new articles are accepted, all information regarding them will be published in *The Journal of the American Medical Association*, and will be incorporated in the next edition of the book.

The Council appreciates the importance and difficulties of the work to be undertaken and does not expect to take a step forward without being sure that it is right and just to all concerned. It does not dare to hope for perfect results and can only promise to strive earnestly, honestly and impartially to avoid serious errors of commission and omission. It asks for the hearty co-operation and assistance of those it believes to be interested in the work—the entire medical profession and all honorable manufacturing pharmacists and chemists. Criticisms and suggestions will be welcome.

Rules Governing the Admission of Articles.

The following rules are adopted to guide the Council on Pharmacy and Chemistry of the American Medical Association:

(The term "article" shall mean any drug, chemical or preparation used in the treatment of disease.)

Rule 1.—No article will be admitted unless its active medicinal ingredients and the amounts of such ingredients in a given quantity of the article, be furnished for publication. (Sufficient information should be supplied to permit the Council to verify the statements made regarding the article, and to determine its status from time to time.)

Rule 2.—No chemical compound will be admitted unless information be furnished regarding tests for identity, purity and strength, and, if a synthetic compound, the rational formula.

Rule 3.—No article that is advertised to the public will be admitted; but this rule will not apply to disinfectants, cosmetics, foods and mineral waters, except when advertised in an objectionable manner.

Rule 4.—No article will be admitted whose label, package or circular accompanying the package contains the names of diseases, in the treatment of which the article is indicated. The therapeutic indications, properties and doses may be stated. (This rule does not apply to vaccines and antitoxins nor to advertising in medical journals, nor to literature distributed solely to physicians.)

Rule 5.—No article will be admitted or retained about which the manufacturer, or his agents, make false or misleading statements regarding the country of origin, raw material from which made, method of collection or preparation.

Rule 6.—No article will be admitted or retained about whose therapeutic value the manufacturer, or his agents, make unwarranted, exaggerated, or misleading statements.

Rule 7.—Labels on articles containing "heroic" "poisonous" substances should show the amounts of each of such ingredients in a given quantity of the product.

Rule 8.—Every article should have a name or title indicative of its chemical composition or pharmaceutic character, in addition to its trade name, when such trade name is not sufficiently descriptive.

Rule 9.—If the name of an article is registered, or the label copyrighted, the date of registration should be furnished the Council.

Rule 10.—If the article is patented—either process or product—the number and date of such patent or patents should be furnished. If patented in other countries, the name of each country in which patent is held should be supplied, together with the name under which the article is there registered.

Explanatory Comments on the Rules.

Rule 1.—Certainly no one can object to this rule. The physician not only has the right to know, but it is his duty to know, the composition of medicines he prescribes for his patients. He may not be interested in the details of the method or of the process of manufacture of an article, but he should know what medicinal agents it contains, and the amounts represented in a given quantity of the article.

Only in exceptional instances is it necessary for the physician to know the solvent, vehicle or diluent, or the particular flavoring agent which may have been employed. For this reason, while the Council desires the formula and the details as to the method of preparation to be sufficiently complete to enable it to verify the correctness of the assertions made regarding an article, the description to be published will usually consist only of a statement of the amount of each medicinal agent or ingredient in a certain quantity—generally the ordinary dose—of the article, and in some instances the general character of the solvent or vehicle and flavors.

In preparations for external use, the therapeutic efficiency is greatly influenced by the nature of the vehicle. Therefore, in such preparations, the character of the vehicle or base should be stated, so that it may be known whether the article is penetrative or simply protective.

Rule 2.—In order to avoid errors in the case of chemical compounds and to guard against adulterations, lack of potency or strength and mistaking one chemical for another, it is necessary to have at hand suitable identity

tests. Where these facts have appeared in the literature, or in standard text-books, reference to them will be sufficient, but with new chemicals, especially synthetics, the manufacturer or his representatives will be required to supply such tests to the Council, together with the rational or structural formula, in order that an intelligent opinion of these products may be obtained.

Rule 3. While the correctness of the principle that physicians can not be expected to favor any medicine which is exploited to the lay public will be readily conceded, this rule is to be modified in its application to articles not strictly medicinal.

Rule 4.—This rule may appear to some as radical, and yet on consideration it will be found just to the public, to the physician, to the manufacturing pharmacist and chemist, and also to the retail druggist. It must be remembered that it applies only to the package, and to the labels, circulars, etc., accompanying it. It does not in any way interfere with advertising, circulars, literature, etc., furnished to physicians. Experience has clearly shown, however, that it is not safe to enumerate on the package the diseases in which an article may be indicated, since this is also the means by which the laity, who are not competent to determine whether or not its employment is safe and proper, may be induced to continue its use or to recommend it to others quite regardless of the evident dangers of forming drug habits or of doing serious injury by employing a remedy that in reality may be contraindicated. It is the physician's prerogative to determine in what disease the article may be indicated, and he is not supposed to go to the drug store for his knowledge regarding this. It is not the function of the pharmacist to recommend or to prescribe medicines, but only to be familiar with their pharmaceutical and chemical characters, strength and dosage and with the best forms of adminstration.

It is asserted that the naming of diseases on the label of the package is necessary, because many physicians will be unable to tell from the theurapeutic properties alone in what diseases a medicinal article may be indicated. This may be true with a certain class of doctors, but it is certainly not true with the vast majority of the educated, progressive physicians of America, and this is the class whose interests are concerned in this movement. There may be some exceptional articles, such as foods, digestants and mineral waters, in which the therapeutic properties alone may not sufficiently indicate the use, and in these cases, perhaps, reference may be made to certain symptoms; if such references appear they will be carefully considered. Antitoxins and vaccines come under this exemption. The Council, however, is unanimously of the opinion that this method of exploiting the medical profession is one of the principal causes which has made the best physicians hesitate to prescribe any proprietary medicines, has led others into irrational therapeutics, has made pharmaceutical tyros believe that they could prescribe just as well as the physicians, and has been the means of causing scores of these medicines to be used for self-medication by the laity, to the detriment and sometimes to the serious and permanent injury of the person taking them. The physician would prefer that the manufacturer confine himself to furnishing the articles and reasonable information regarding their identity, quality, strength and pharmaceutical and chemical character, leaving the physician to indicate in what diseases they should be used.

It is believed that the application of this rule will most quickly determine what manufacturers would rather have the preference and favor of the vast majority of the medical profession and of the members of the American Medical Association than the doubtful support of a rapidly disappearing minority of practitioners.

Ample time will be given manufacturers to conform with this rule and also Rule 8, entailing changes in labels or in other printed matter.

Rule 5.—While this is a rare contingency, yet in the past many rank frauds of this nature have been perpetrated on the profession, and this rule will have a tendency to prevent such attempts in the future.

Rule 6.—As in the preceding instance, this rule will have a tendency to restrict manufacturers or agents in their claims as to the therapeutic superiority of their products, without interfering with any reasonable assertions, especially when such are confirmed by clinical data from responsible medical men.

Rule 7.—For the information of the pharmacist or dispenser, and to enable him to act as a safeguard to the patient and to the physician, all medicinal articles containing such potent agents as the poisonous alkaloids and other organic substances and the salts of some of the metals, should have the exact amount of these ingredients contained in the average adult dose stated on the label. A list of these potent substances will be prepared with more specific information.

Rule 8.—In order to prevent the confusion now existing with reference to many articles known only by more or less arbitrarily selected or coined, usually protected names, it is necessary that every article which is intended solely for physicians' use or prescription be designated by a scientific title or by a name descripitve of its pharmaceutical character, and, as far as practicable, of its principal medicinal constituents. Synthetic chemical products should give the true chemical constitutional or structural name, in addition to the trade name. The application of this rule will enable physicians to use many of these articles which at present they are afraid to use because of uncertainty as to the identity—owing to the similarity in the names of many of these entirely different products—or prefer not to prescribe in order to avoid criticism and the danger of self-prescription by their patients. This provision will thus be of great benefit to manufacturers of meritorious products, will relieve pharmacists of many trying situations in interpreting correctly the names of articles desired by physicians, and will protect both physicians and laity from the evils named.

The Council will use reasonable discretion in enforcing this rule with reference to trade names of long-established articles.

Rules 9 and 10.—This information is desired to enable the Council, and others interested, to determine the legal status of these articles and for ready reference through publication.

Respectfully submitted.

ARTHUR R. CUSHNY, Ann Arbor.
C. LEWIS DIEHL, Louisville.
C. S. N. HALLBERG, Chicago.
ROBERT A. HATCHER, New York.
L. F. KEBLER, Washington.
J. H. LONG, Chicago.
F. G. NOVY, Ann Arbor.
W. A. PUCKNER, Chicago.
SAMUEL P. SADTLER, Philadelphia.
J. O. SCHLOTTERBECK, Ann Arbor.
GEO. H. SIMMONS, Chicago.
TORALD SOLLMANN, Cleveland.
JULIUS STIEGLITZ, Chicago.
M. I. WILBERT, Philadelphia.
H. W. WILEY, Washington.

Members of the Council on Pharmacy and Chemistry, American Medical Association.

AMENDMENTS TO THE CONSTITUTION;

SECOND PUBLICATION.

ARTICLE VI.

SEC. 2. The officers, except the Treasurer and the Councilors, shall be elected annually. The terms of the elected Councilors shall be for three years, those first elected serving one, two and three years, as may be arranged. (All of these officers shall serve until their successors are elected and qualified.)

SEC. 3. No Delegate shall be eligible to any office named in the preceding section, except that of Councilor, and no person shall be elected to any such office (who is not in attendance upon the Annual Session and) who has not been a member of the Society for the past two years.

SEC. 4. The selection of the place of meeting, and the election of officers, shall be the first order of business of the House of Delegates at the second evening session of each annual meeting.

SEC. 5. All officers shall be elected by ballot, and shall serve until their successors are chosen and qualified.

The portions of sections 2 and 3 in parenthesis are to be dropped; sections 4 and 5 are to be added.

The Rubaiyat, After Osler.

Heretofore the STATE JOURNAL has refrained from inflicting upon its readers poetry, genuine or otherwise, and we certainly feel that a considerable amount of gratitude is owing to us on this score. There has never been made a definite rule of the Publication Committee covering this point, but it has been almost an unwritten rule that poetry "don't go." The present is an exceptional case, and the following lines, unsigned, are so pertinent to the Osler foolishness that has recently permeated the press, both lay and medical, that we cannot refrain from inflicting them upon you:

So, when the Angel with the Esmarch Mask
At last shall bid you to lay down your Task—
And whelm your Soul with Breath of Chloroform,
You shall not shrink from it, nor Respite ask.

Why, if the Soul can thus be Oslerized
And shed the Senile Flesh, at one Time prized,
Were't not a Shame, were't not a Shame for It
To, crippled, wait till with Time gormandized!

IMPORTANT NOTICE TO MEMBERS.

The Thirty-fifth Annual Session of the State Society will be held at the New Glenwood Hotel, Riverside, April 18th to 20th.

The special hotel rates will be $2.50 for room without bath and $3.00 for room with bath, on the American plan—including meals. For those desiring to stop off at Los Angeles the Van Nuys Broadway, offers a special rate of $2.50 per day, American plan.

Both the Southern Pacific and the Santa Fe have made the usual arrangement in regard to rates; the fare will be one fare and a third for the round trip. When you purchase your ticket be sure and get a **Receipt Certificate; this must be signed by the Secretary at the meeting.** You pay full fare going and when you present your receipt certificate duly signed by the secretary, your return ticket will be issued for one-third the full fare.

Members from San Francisco or points north of there can leave foot of Market street at 5 P. M. (The "Owl"), arriving in Los Angeles at 8:55 A. M.; or at 10 A. M., reaching Los Angeles at 7:05 A. M. On the Coast Line, leaving Third and Townsend streets, there are two trains available, one leaving at 8 A. M. and reaching Los Angeles 10:25 the same day, and the other leaving at 5:45 P. M. and getting into Los Angeles at 11:15 the following morning.

Leaving Los Angeles for Riverside, there are five trains on the Southern Pacific: 8:05, 9:00 A. M., and 12:10, 4:25 and 5:25 P. M.

On the Santa Fe there are four trains leaving Los Angeles for Riverside: 7:30 and 10:45 A. M., and 4:30 and 5:05 P. M.

The local committee is arranging to give the members who attend a most cordial welcome. One afternoon will be given up to a drive about the country, visiting an orange grove or so on the way; a game of polo may be witnessed, and other interesting matters will be provided. On Wednesday evening it is proposed to have an informal dance, and on Thursday the banquet. Wines will be served at meals as ordered by guests.

THE SCIENTIFIC PROGRAM.

Tuesday morning; 1st General Session. Address of Welcome by the President of the Riverside County Medical Society, Dr. W. W. Roblee. **Symposium on Typhoid Fever.** This will be discussed under 7 subjects by Drs. C. M. Cooper, San Francisco; E. W. Twitchell, Sacramento; F. C. E. Mattison, Pasadena; Claire Murphy, Los Angeles; S. J. Hunkin, San Francisco; P. C. H. Pahl, Los Angeles; Ray Wilbur, Stanford University; Geo. B. Rowell, San Bernardino; and W. E. Bates, Davisville.

Wednesday morning, 2nd General Session. 1, Address by the President, Frank Adams; 2, Report of Committee on Tuberculosis, F. M. Pottenger; 3, Hopes, Disappointments and Successes of the State Board of Health, N. K. Foster; 4, Maritime Quarantine, Hugh S. Cumming, U. S. P. H. & M. H. Service; 5, Report of and Suggestions on the Work of the State Board of Medical Examiners, Dudley Tait; 6, Admission to Medical Courses of Persons with Defective Preliminary Education, with Suggestions for the Remedy, Lincoln Cothran.

Thursday morning, 3rd General Session. Symposium on Diseases of the Gall-bladder and Ducts. This will be participated in by papers and discussions from the following members: H. C. Moffitt, San Francisco; Geo. L. Cole, Los Angeles; Ernest B. Hoag, Pasadena; H. A. L. Ryfkogel, San Francisco; A. J. Lartigau, San Francisco; Stanley Black, Los Angeles; A. H. Mays, Sausalito; Emmett Rixford, San Francisco; A. S. Lobingier, Los Angeles; Stanley Stillman, San Francisco.

The arrangement for the afternoon sessions, **subject to revision by the Committee on Program,** is as follows: **Tuesday; Genito-Urinary and Skin;** 1, Circumcision, by Geo. E. Abbott, Pasadena; 2, Erythema Keratodes, by A. Garceau, San Francisco; 3, Conveyance of Syphilis by Medical Men, by D. W. Montgomery, San Francisco; 4, Remarks on Use and Abuse of X-ray, by A. B. Grosse, San Francisco; 5, Indications for Roentgen Therapy, by P. M. W. Lehman, San Francisco; 6, Practical Application of Functional Diagnosis in Unilateral Kidney Lesions, by M. Krotoszyner and W. P. Willard, San Francisco. **Medicine, Pediatrics and Obstetrics** with the following papers: 1, Prevention of Disease, by F. M. Bruner, Santa Ana; 2, Analysis of Deaths from Tuberculosis in Los Angeles for the Year 1904, by Geo. H. Kress; 3, Difficulties in Substitute Feeding, by A. B. Cowan, Fresno; 4, Adams-Stokes Syndrome with Report of Two Cases, by S. H. Gordan, Santa Ana; 5, Uncinaria in California, with Specimens, by Herbert Gunn, San Francisco; 6, Human Glanders in California with Report of a Case, by Wm. Fitch Cheney; 7, Case of Poisoning by Ceonthus Velutinus, by R. F. Rooney, Auburn.

Thursday afternoon; Surgery and Gynecology; 1, Adolescence in Girls, by F. R. Burnham, San Diego; 2, When to Operate for Fibroid of the Uterus, by Rose Bullard, Los Angeles; 3, Multiple Tenotomy for Relief of Spastic Paralysis, by A. M. Henderson, Sacramento; 4, Report of Cases (a) Ulcer of the Stomach and Duodenum, and (b) Primary Carcinoma of the Appendix, by J. H. O'Connor, San Francisco; 5, Hernia, by F. O. Witherbee, Los Angeles; 6, New Interdental Splint for Fractures of the Lower Jaw, by Raymond Russ, San Francisco; 7, Radical Cure of Umbilical Hernia, by A. W. Morton, San Francisco. **Eye, Ear, Nose and Throat Diseases;** 1, Operation on the Nasal Septum, by Grant Selfridge, San Francisco; 2, Adenoids from the Standpoint of the Parent and the General Practitioner, by R. L. Doig, San Diego; 3, Cerebral Abscess Following Acute Suppurative Otitis Media with Mastoiditis, by Hill Hastings, Los Angeles; 4, Relation of Chronic Otitis Media to Other Diseases of the Ear and the Operative Treatment, by C. F. Welty, San Francisco; 5, Misuse of Atropin in Eye Diseases, by L. C. Deane, San Francisco; other papers the titles of which are not yet received.

The Committee on Program has endeavored to keep the number of papers to be read within reasonable limits. In addition to the above list **other papers have been submitted and they will be presented in the event that there is time for them** without crowding from the program regular papers as listed The Committee has desired to have fewer papers and give more time for their careful presentation and discussion than has sometimes been the case

A CONSIDERATION OF CONGENITAL DISLOCATION OF THE HIP.*

By HARRY M. SHERMAN, A. M., M. D., San Francisco.

THE study of congenital dislocation of the hip, began, so far as its present development is concerned, by Hoffa in 189—, has gone on by definite steps—the scientific advance being quite undisturbed by the hysterical wave, begotten and nourished by the irresponsible daily newspapers, in 1902, when Lorenz came to this country.

Hoffa's first plan was to gain access to the site of the acetabulum by an incision behind the trochanter, necessitating the cutting of important pelvi-trochanteric muscles. Not only was this a disadvantage in itself, but the acetabulum had to be approached by a devious and difficult path between the illum and the femoral head. Lorenz improved the technique immensely when he devised, advocated and practiced the making of the incision anterior to the trochanter, approaching the acetabulum directly and without really cutting any muscles, for the incision was made in the direction of the muscular fibres and was a muscle splitting and not a muscle cutting. In each operation the acetabulum was deepened and enlarged to make an incompetent into a competent socket, it being the belief then, that the chief deformity lay in the saucer shape of the acetabulum. That the Lorenz incision was the better, Hoffa acknowledged by adopting it, and in 1895, when I was in Wurzburg, it was the incision he was using. The method was a satisfactory one so far as putting the femoral head into an acetabulum was concerned, but the results were in many, very many instances, disappointing. This I found out in my own cases in which I had followed carefully the Hoffa-Lorenz technique, for not a few reluxated and others became anchylosed.

The reluxations were surely due to the impossibility of adapting the acetabulum to the head and the head to the acetabulum. Each bone was deformed, the acetabulum being anything from a cup-like hollow, or a saucer-like hollow to a little patch of cartilage in the shape of an ear or pear, in the proper site, but with no hollow at all, and the head being anything from a practically normal head to a little cartilage-encrusted nubble of bone on the side of the femur. Neither fitted, and the remodelling of either to exactly fit the other so that an anatomical result and a satisfactory function might be secured, proved an impossibility. It seems to me that this difficulty in the proposition must be so plain that further remarks on it are not necessary.

The cases which became and remained anchylosed require more comment. In these cases the hips were found, after the operation wounds had healed, to be in proper position—the head in the acetabulum—but while they had at first an ample practical range of motion they soon came to have only a limited range of motion and finally no motion at all. From this point two courses were apparently possible; either the anchylosis became firmer and firmer, or after a time it gradually became less, and an amount of motion developed which was ample in range for ordinary uses; that is, ample practical motion was secured. The cause of the anchylosis was a pertinent one, and, while I cannot speak from the standpoint of one who has opened a joint at this time and seen the condition inside it, I can speak from the standpoint of one who has examined and manipulated such joints. The explanation offered is reasonable and simple. From the cancellous tissue of the deepened acetabulum, the cartilage having been removed in the process of deepening, granulation tissue grew for the purpose of repair. This adhered to and enveloped the femoral head, and as it became older and firmer, less cellular and more fibrous, it contracted and fastened the head more and more firmly in one position. It seemed that this condition could be almost seen, so perfectly does the explanation account for the sensation gotten by forcibly moving the hip in this stage, while the child is anesthetized. At first, resistance was encountered; then this yielded as if something tore and motion was permitted, but with crepitation in the joint, which was softer and moister in those manipulated earlier, and harder and drier in those manipulated later. In the cases that remained anchylosed this bond—not disturbed by manipulation or reforming after it—became stronger and shorter, while in those that gradually secured practical motion there must have developed a pseudo-arthrosis between the femoral head and the granulation tissue or fibrous tissue floor of the acetabulum, and it is not inconceivable that there was a regeneration of articular cartilage so that in time, an approximation to a normal acetabulum resulted.

However, the results in these cases—though only nine or ten in number—were not good enough to satisfy me. I was quite ready for the next step when it came.

In 1887 Paci, of Pisa, began the reduction of congenital dislocation of the hips by manipulation, using circumduction movements, as in accidental dislocations, but in all his actions he was careful to commit no trauma. Lorenz saw the method demonstrated in 1894, and some time after he had returned home he tried it, and believing that he got good results from it he has continued the practice of it. Lorenz, however, practiced and advocated the use of great force, putting the limb into unnatural abduction, forcing the femoral head with violence to and, if he could, into the acetabulum and this with the result of committing traumatisms not inconsiderable in character or number. These include fractures of the femur and of the pelvis; paralysis of the anterior crural and sciatic nerves; rupture of the femoral vein and one case of total gangrene of the limb. In addition he bad deaths due to chloroform and to shock. Other operators by the method reported similar casualties. Hoffa and Heusner tore the vulva and the urethra, fractured bones and separated their epiphyses, had paralysis of the nerves of the part, and got large hematomata, some of which suppurated. Kummel states that unfortunate occurrences are not rare, and Ridlon, who has but recently published bis statistics, acknowledges fractures of the femur.

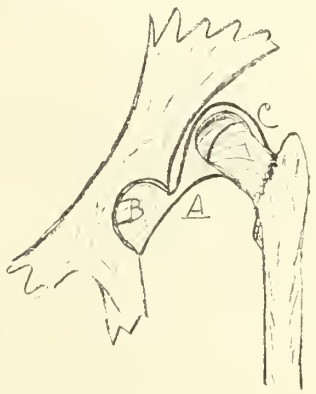
Finally from personal observation in the course of operation on one of Lorenz's cases, I know that he lacerated the capsule, thrust the head through the rent and left it outside the joint, among the muscles in the outer part of Scarpa's space, where it could be felt just beneath the fascia lata. And I have seen other cases where the head was in this same superficial location which it could only have reached, I believe, by a similar mutilation. These confessions of disasters are quoted from various recent publications, chiefly a paper by Davis of Philadelphia, in the *American Journal of Medical Sciences* of 1903. But when I, sometime in 1897, first began the use of the method, —the method of reduction by manipulation, which has come to be known as the "bloodless" method, but which should be called, because of the man who originated it and the other who popularized it, the Paci-Lorenz method—this tale of mishaps had not been told, and I, in the thirteen hips on which I practiced, was fortunate enough to have no such accidents, though the very extensive ecchymosis that followed the operation showed that a really decent amount of force had been used. The ecchymosis itself was of no moment, but I found that, out of thirteen cases in which I easily put the femoral head in or on the acetabulum, only one was an anatomical reduction, and could be counted on to stay reduced and to be a functional hip; one more was what is now called an anterior transposition. All the others were unqualified failures in that they reluxated, either in the plaster of Paris splints or very shortly after taking them out of these retentive dressings.

*Read at the meeting of the Oregon State Medical Association, August 30-31, 1904.

One success out of thirteen cases—for I do not count an anterior transposition a success—did not satisfy me. I abandoned the method in 1899 and have not returned to it. It is pertinent at this point to inquire if others were more fortunate than I in the method, and I quote again from the paper of Davis, already alluded to: In Schede's clinic, reported by Petersen, there were 113 cases with 6 cures. In Mikulicz's clinic, reported by Drehmann, of 128 hips in which the reposition is said to have been accomplished, in 70 it is stated to have been permanent, while in the others reluxations or transpositions were the final results.

Heusner, in 1899, considered the results excellent in 10 per cent of the cases, good after long treatment in 30 to 50 per cent, and unpromising in the rest. Ludloff claimed 9 satisfactory results in 11 cases. Kollicher reported only 2 cures in 51 hips, Codivilla 4 or 5 cures in 66 cases, and Kummel only about 5 per cent of cures. Hoffa then reported 5 cures in 64 hips. Wolff's claims were for 25 per cent cured. American operators have not done any better, and Kirmisson, of Paris, says that perfect reposition is rarely attained. Now Lorenz reported, in 1900, 108 anatomical results in 212 cases. This matches Mikulicz's statistics which gave something more than 50 per cent of successes. How can we reconcile these various statements? Davis says, "If one is critical, as is the case with Kirmisson, Hoffa, Kollicher, Schede, Codivilla, and others, then one will call 5 per cent cured. If one is more easily satisfied, then the cures will amount to 50 per cent, as in the case of Lorenz, or more, as in the case of Mikulicz." In this I wholly concur, for judging the work of Lorenz in the light of the cases and results he left scattered through America, I do not believe his anatomical results are any more than the average 5 to 10 per cent, and I cannot accept the reports from Mikulicz's clinic as representing the real facts there.

Now there are reasons, other than natural skepticism, other than statistics, for my doubting the statements of those reporting such high percentages of anatomical reductions, and they are these: I have opened, in all, 41 hips of this kind. In all but one I have found the condition originally described by



Showing Constricted
Point (A) in Capsule -
(B) Acetabulum. (C) Femoral Head.

Figure 1.

Lorenz long ago, a contraction of the capsule at the upper, or upper and posterior part of the acetabulum, at the place where the capsule leaves the acetabulum and reaches up to the displaced head. It is very like an hour glass contraction. Below it the capsule is stretched across the hollow of the acetabulum from rim to rim; above it the capsule is distended to envelop the head. Both above and below

Head put on, but not in The
Acetabulum - Two layers of
Capsule Interposed -

Figure 2.

the capsule has its normal attachments. The acetabulum occluded by the drum head arrangement of the capsule. Lorenz called the acetabular pocket, and

Posterior Location

Figure 3.

Bradford named the narrowed part in the capsule, the hymen of the acetabulum. Now this acetabular hymen must be ruptured to permit the penetration of the femoral head to the socket of the acetabulum. If this be not done the head is merely put on the capsule occluding the acetabulum, with a double layer of capsule between the two bony parts, and is, of course, in incomplete and unstable reposition. However, in the 41 cases of which I have definite surgical knowledge, this would have been possible in only one—in one case the acetabular hymen practically did not exist and the case would have been a perfect one for the manipulative method. In all the others the opening was so small that my forefinger could with difficulty be passed through it, and in some the passage was actually impossible to the finger. I am safe in

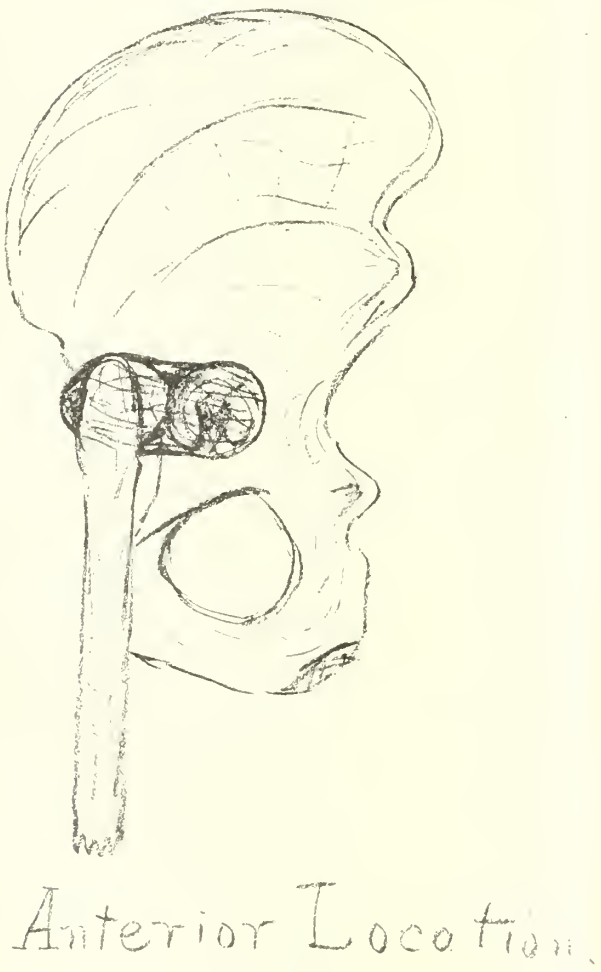


Figure 1.

the assertion that in not one of these forty cases could any one in the world have made an anatomical reposition by manipulation, and yet they were exactly like the cases in which Lorenz and Mikulicz were claiming over 50 per cent of cures.

What do these men really get who change the position of the femoral head but do not put it into the acetabulum? The result they secure Lorenz has called anterior transposition, the posterior location of the head on the dorsum of the ilium is changed for an anterior location, the head lying above and in front of the acetabulum, and, if possible, under the long head of the rectus femoris and the anterior inferior spine of the ilium, though in not a few cases the head—owing to the twist which is often present in the shaft of the femur—is directed forward, and does not get the somewhat stable position under the head of the rectus. This position is a better one than that on the dorsum, and the deforming lordosis is done away with, but the head is still outside the acetabulum, the support of the body must be by ligaments and not by natural bony parts. The leg is short, and there is a swaying limp in the walk to balance the trunk over the unstable joint. It may be granted that conditions are improved, but the goal sought has not been attained, the dislocation has not been reduced.

It has not seemed to me sensible or right to stop at this point. Surgeons who find mechanical obstacles to the reduction of a traumatic dislocation remove those obstacles by a cutting procedure. I am quite unable to see why cutting should be barred in this case when it is so universally resorted to in all other kinds of cases in all other parts of the body. To taboo the knife here and turn to it elsewhere is illogical. And it chances that but very little cutting is necessary and it can all be restricted to fibrous tissues, even the muscles being split and not cut. Acting on this idea I began in 1898 reducing congenital dislocations of the hip by means of an incision which laid open the acetabular hymen and gave free access for the head to the socket, and since then I have practiced no other method. The method really reduces, it puts the femoral head actually into the acetabulum, cartilage to cartilage. By it I can do the thing I set out to do. But I do not deepen the acetabulum and so expose cancellous bone and invite anchylosis, and the result is that all of the hips have motion. In the younger children, under six years old, this motion comes easily and naturally simply from the use of the limb. In the older children it comes more slowly but still it comes. The stability of the reposition depends, in the first place, on the mutual adaptation of the head and socket. If these are well suited to each other the reposition is stable; if either is incompetent—the socket too small or too shallow, or the head stunted and misshapen—the reposition is likely to be unstable and a supracotyloid reluxation to occur. This result can be sometimes averted by prolonging the splint restraint and making the parts work in contact, so that use together shall force a mutual remodelling. This is exactly what Lorenz does with the cases he subjects to the "bloodless" method. If after 8 to 12 months of being held together the head and socket still refuse to make a mechanical joint, either the time of splint restraint may be prolonged in the hope that the obdurate parts will yield, or the hip may be permitted to go into the supracotyloid luxation, accepting this position at the end of a treatment which has included real reduction and efficient and prolonged restraint in that position instead of accepting it at the beginning as an anterior transposition.

I have only operated in all on thirty hips by this method. I had the statistics regarding 28 of them looked up last April and they are equally good now, and have to be corrected in but one particular, the case of an eleven year old girl whose hip I reported as a stable reduction, but which I have since found to be a reluxation. I report now 30 hips in 21 children. The oldest was eleven years, the youngest ten months. Eighteen hips are known to be in stable reduction at times varying from six years to two months. Nine hips are known to be reluxated or subluxated. In three cases the final result is unknown. Studying these figures in the light of the failures, and taking cognizance of the improvement in my manual skill in the operation and the improvements which I have come to institute in the after treatment, I am inclined to believe that the stable repositions in young children should be 90 per cent, but this must be taken frankly as an optimal estimate, not as a statement of statistical facts.

The technique of the operation as I have come to do it, is as follows: The child is placed on the table with a sheet, rolled diagonally into a soft sort of rope,

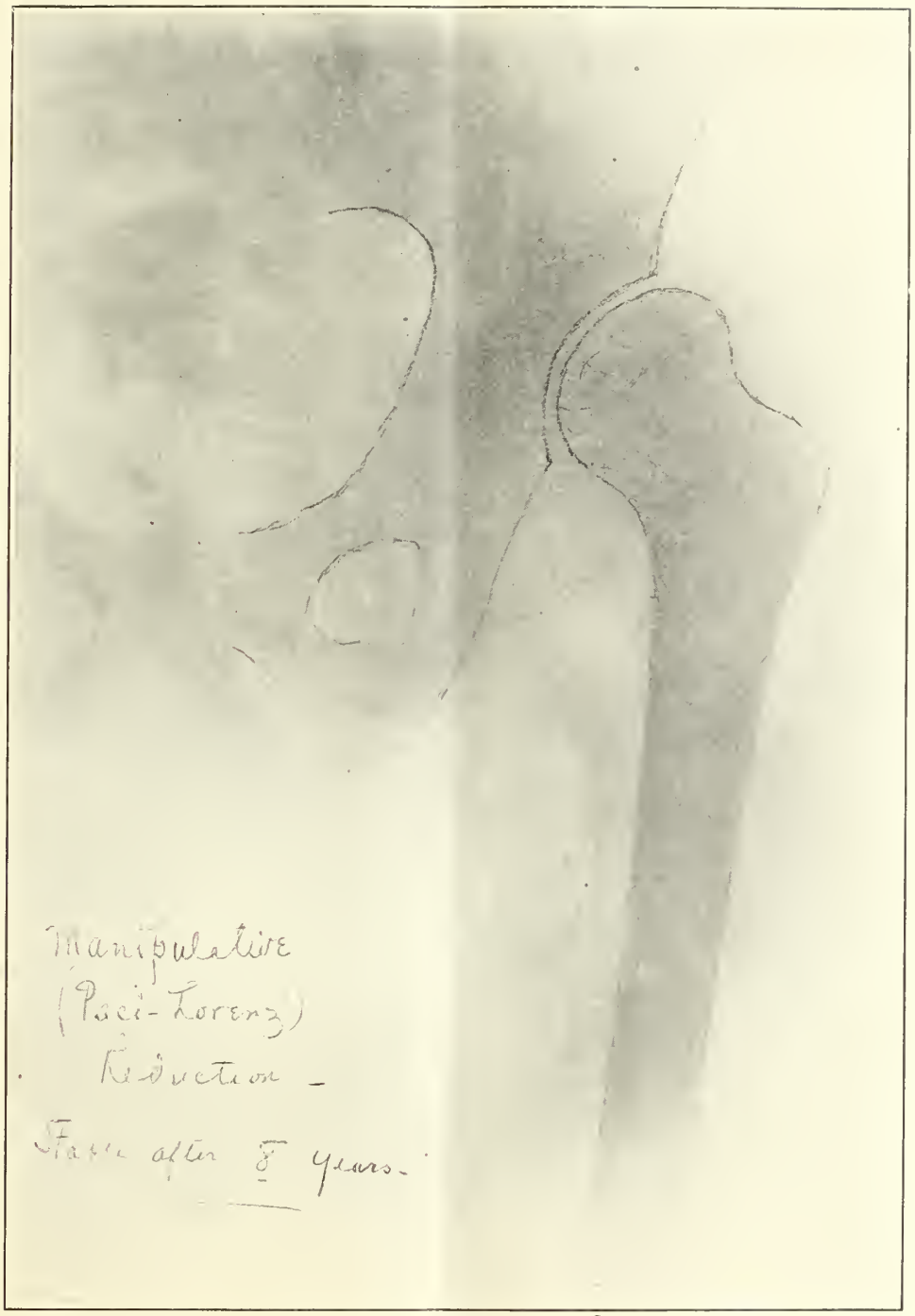


Figure 5.

Figures 5 and 6 show the similarity of the end results after successful manipulative reduction, and after reduction through an incision. Granting the value of the former includes the granting of the value of the latter.

between the thighs. The ends of this rolled sheet reach up beyond the child's head and are attached to a stout ring in the wall of the room. The part which is between the thighs is wrapped with a wet sterile towel and arranged so that it lies directly under and across the ischial tuberosity of the side on which the operation is to be done. It must not lie across or cover the genitalia. This sheet gives a safe and sufficient counter traction in case any amount of force is needed to pull the femoral head down to the level of the acetabulum. Around the thigh, just above the knee is fastened a skein of yarn, by a clove hitch, and another is put around the ankle in the same way. Traction on either or both of these is permissible, up to limits which seem safe, and that without injury to the skin.

A moderate pull is then made on the leg which draws the femoral head down from its usual location on the dorsum of the ilium and brings it just below the anterior superior iliac crest, where it is easily

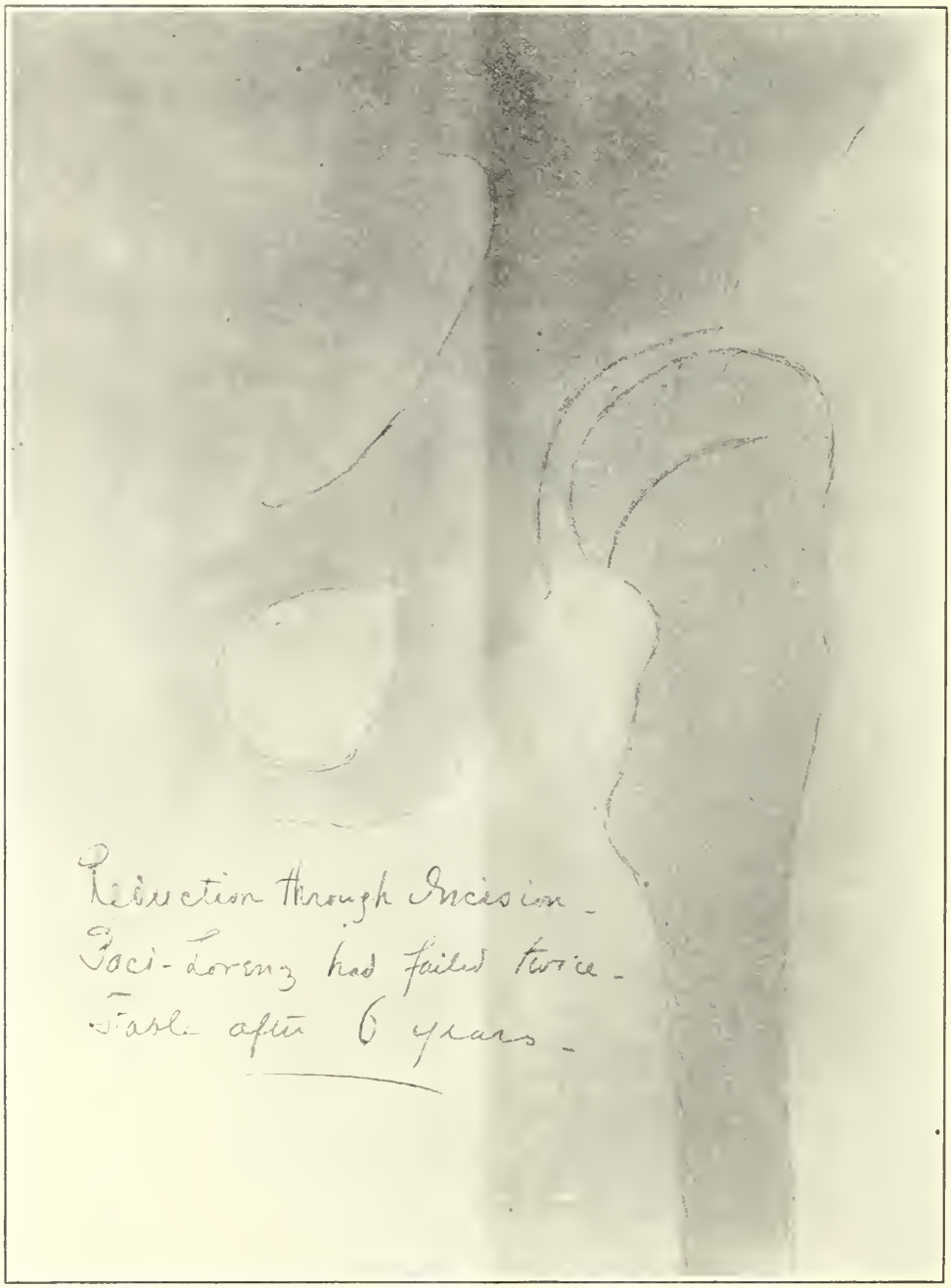


Figure 6.

palpable. The incision advised by Lorenz is then made; cutting skin, subcutaneous fascia, fascia lata, and finally the muscle and all in the direction of the muscular fibres so that these are separated and not cut. This exposes the capsule and it is incised in the same direction showing the femoral head inside it. Deep retractors have been used to hold the tissues apart, but now long loops of catgut are put in either side of the incision in the capsule and they act as retractors. In older children it is right to do a subcutaneous section of the adductor tendons close to the pubes.

The pull on the leg is now relaxed, the femoral head goes up and the gloved finger is slipped into the capsule and down toward the acetabulum. Very rarely indeed will it be able to enter the latter, though flexion of the hip relaxes the anterior part of the capsule and so makes the opening somewhat larger. On the finger, as a guide, a long, straight probe-pointed bistoury is passed into the acetabulum, and while the finger in the wound presses its edge downward against the lower part of the capsule, the hand on the outside slowly saws the knife to and fro. The cut thus made must be close to the femur and must especially avoid the anterior part of the capsule. Care must be taken not to cut off the ilio-psoas tendon, but the incision must be ample enough to give free access to the cavity of the acetabulum.

Now the femoral head is again pulled down from the dorsum of the ilium, by hand traction on the leg or on the yarn skeins, or, in older children, a tackle of blocks and rope may be used to overcome the re-

sistance of shortened muscle and fascia. When the head is over the acetabulum it may, in some instances, be thrust into the socket by firm pressure inward over the trochanter. Sometimes this maneuver has to be combined with abduction of the leg, made while the traction is maintained, the operator pressing the while firmly on the trochanter and supplying a fulcrum so that the head may be made to travel downward and inward and jump over the acetabular rim into the socket. There is one objection to the traction for it makes a pull on the anterior fibres of the capsule and narrows the opening, and so occasionally one finds that, after reasonable efforts at it, in which the capsule has probably become somewhat stretched, flexion of the hip and manipulation of the leg—the direction of the movements being guided by the finger in the joint—succeed in slipping the head into the acetabulum with the use of no force at all. In not a few instances, in young children, two to four years old, this may be done primarily, without the preliminary pull on the leg.

In a fair proportion of these cases there is a twist of the upper part of the femoral shaft so that the neck and head look forward when the toes are pointed in the same direction. Whether this is the case or not can always be determined by radiograms, one taken with the toes pointing forward and another with the limbs rotated out. If there is the twist forward in the bone, it will be necessary to compensate for it by rotating the whole limb inward during the manipulations to direct the head into the acetabulum. Once the head is in the acetabulum the limb is put into a position of abduction, of from 50° to 90°, and rotated in or not as may be necessary. This position thrusts the head more firmly into the acetabulum and prevents reluxation. The two retracting loops are now tied together to close the upper part of the incision in the capsule. The lower part of the incision has, by the act of reduction, been carried so deeply into the limb that it cannot be reached to be sutured. Sutures are then put in the fascia, deep and superficial, leaving space for the insertion of a cigarette drain down to the capsule. Finally the skin is sutured and then both limbs and the pelvis put into a double plaster of Paris spica. Even if but one hip is operated upon both limbs must be included in the first retentive plaster dressing. After forty-eight hours the drains are taken out, and, if there has been no sepsis, the leg is left undisturbed for three months. If sepsis occurs it is right to reluxate to avoid an anchylosed hip.

After three months the spica is taken off, and the limb adducted somewhat and another spica put on, including only the leg of the side of the operation in the one-sided cases, both legs in the double cases. After another month or so this may be arranged so as to leave the foot free, and the child may then be made to walk in the plaster. After six months have elapsed the spica may be made only to include the thigh and pelvis, leaving the knee free. After eight or nine months this retentive dressing may be left off entirely.

Southern California Hospitals.

The hospitals and sanatoria in the southland are almost constantly expanding and developing. Dr. Pottenger, Chairman of the Committee on Tuberculosis of the State Society, has met with remarkable success in the development of his sanatorium at Monrovia and has had to double its size, the addition being completed only recently. Already it is full and he is, we understand, contemplating still further expansion and equipment. The Good Samaritan Hospital in Los Angeles has recently installed what appears to be as nearly a perfect call system as it is possible to devise, together with many other improvements. The California Hospital, also in Los Angeles, has under way, and now nearly completed, a very considerable addition to its buildings. This new portion is built of brick, like the maternity pavilion, and adds largely to the accommodations of the hospital.

REPORT ON AN EPIDEMIC OF DIPHTHERIA.*

By RAY LYMAN WILBUR, M. D., Stanford University.

IT IS MY aim to present to you in this paper a brief report on forty-three cases of diphtheria that recently came under my observation, and also to outline the methods used to prevent the spread of the disease, particularly by the prophylactic injection of antitoxin. These forty-three cases do not represent all that occurred at the time of the epidemic, but only those actually seen by me either in consultation or as private patients.

In December 1903, and subsequent to that time, particularly during last June and July, several cases of diphtheria occurred in Palo Alto and on the Stanford University campus. Some of these cases were severe and one death resulted, but during the month of August there were no new cases. With the return of the students from their vacation early in September new cases began to appear. The origin of these early cases was obscure and in no one of them could be traced absolutely to a definite source. Some of the infected students reported diphtheria as prevalent in their home towns. In none of the early cases could a history be obtained pointing to contact with any previous diphtheria patient in the neighborhood, or with any apartment formerly occupied by such a patient. Many of the later cases that appeared were evidently from association with the earlier ones. A number of them came from two cases that were left, wrongly diagnosed, in a dormitory for almost a week. The first case of this series came under observation early in September and the last one was discharged the latter part of October.

General Character of the Cases. A majority of these cases were of the pharyngeal type and occurred in young adults although there were eleven children under ten years and two patients over forty years of age among them. While some of them were quite severe, the major portion of them were diagnosed early and were treated promptly by antitoxin so that the throat condition was not serious at any time. Four only of this series had a laryngeal affection; two of these being under three years of age. There were three buccal, one nasal, and one conjunctival infections, and three had post-diphtheritic paralysis or neuritic symptoms of some sort. None of the laryngeal cases required intubation although only the use of large doses of antitoxin promptly given and frequently repeated saved two of them from laryngeal occlusion. There were no deaths among the patients in this series and all but one were treated with diphtheria antitoxin. This one case was seen about four weeks after the appearance of the membrane for paralysis of the soft palate and a right hemiplegia, and the patient had been treated by a druggist by the use of gargles. The clinical diagnosis of most of the cases was easy. They usually began with headache, malaise, marked pain on swallowing, temperature up to a hundred and two degrees or a hundred and three degrees rapidly sinking to subnormal. Usually the throat had a purplish congested look, and the anterior cervical glands were swollen and tender. The membrane in the beginning was ordinarily of a greyish white color confined to the tonsils and adherent, its base bleeding readily when the membrane was disturbed. As a rule this spread rapidly to the soft palate. The uvula when involved usually became adherent to one of the tonsils.

It was found of great importance to carefully examine all throats with the aid of a head mirror and a swab or probe in order to detect a beginning membrane. Frequently small patches were found on the tonsil completely hidden by the anterior pillar, and a diagnosis was made by culture from them in time to prevent a severe involvement of the throat. In one case the patient had been seen by a physician

*Read before the California Academy of Medicine, De-

a couple of times because of pain in swallowing, headache, etc., and his throat seemed to be clear, but when the soft palate was elevated a membrane was found the size of a five cent piece at the apex of a very long highly-placed tonsil. It was also found of importance to carefully examine the teeth. In two cases where an incoming wisdom-tooth had injured the gum a diphtheritic membrane had formed there, and in another the presence of an alveolar abscess seemed to prolong the tenancy of the Klebs-Loeffler bacilli in the buccal cavity.

Smears made from the membranes of these cases usually showed the presence of typical bacilli, but in no case was a positive diagnosis made before the growth upon blood serum had been examined. In making cultures it was the rule not to use the swab if membrane was present, but to tear off a piece of membrane with a sterile scoop and rub it over the surface of the culture medium. It was usually possible to find plenty of bacilli within fourteen to sixteen hours, although twenty-four hours was sometimes necessary.

Several interesting border-line cases occurred which showed bacilli of various sizes and shapes in smear and culture, and which were characterized by the presence of a whitish non-adherent mucus exudate usually present upon the tonsils only. Cultures from these cases were submitted to bacteriologists with varying results. During the epidemic several of the ordinary staphylococcic tonsillitises and two severe cases of streptococcic infection of the throat came under my observation. In one of the latter a membrane covered both tonsils for thirty-six hours but was readily dissipated by local treatment. In another case diphtheria bacilli were found along with large numbers of oidium bodies. After the use of antitoxin the Klebs-Loeffler bacilli disappeared, but the scattered adherent patches persisted on the tonsils and the posterior wall of the pharynx. Cultures made from them showed numbers of oidium bodies two months after the throat was first seen. Cultures from this case were submitted to Dr. H. R. Oliver, and were thought by him to correspond to organisms described by him as the cause of a chronic membrane in the throat.*

This case shows the advisability of making frequent cultures from throats where a membrane persists after the use of antitoxin.

In another case a smear made from a throat which had some patchy exudate upon the tonsils and a small but adherent patch upon the uvula showed bacilli resembling the Klebs-Loeffler bacilli. A culture was taken and simple gargle ordered and a thousand units of antitoxin given. The culture was positive, but when I returned twenty-four hours later to report the result to the patient, the exudate had completely disappeared from the throat and the second culture was negative.

Temperature. In only a few cases did the attack manifest itself with high temperature. In these numerous streptococcic were found mixed in with the Klebs-Loeffler bacilli. The presence of a temperature of over 103° was usually associated with a staphylococcic or a streptococcic infection and the presence of sustained temperature spoke against the diagnosis of diphtheria. Between 100° and 101° was the commonest elevation noticed and this usually sank within three days after antitoxin was given, to subnormal. About two-thirds of the patients had a subnormal temperature for five or ten days and frequently complained of having cold extremities and being chilly. In three cases the temperature went as low as 96° each morning for several days.

Circulation. Very few of the patients in this series of cases escaped some abnormal changes in the heart rate or action. About one-third had a pulse rate of from 40 to 60 from the fourth day to the fourteenth. This was frequently followed by a period of rapid pulse rate 100 or over with an evening rise of temperature to 99.6° to 100°. Five patients were found with murmurs or developed them during convalescence. Circulatory collapses occurred in two patients and were repeated twice in the same patient. They came on in the third week, were sudden and somewhat alarming, and were accompanied in each case by a sudden nausea, great weakness, pains in the joints with the prompt appearance of a very severe urticarial rash, amounting in one case to an acute edema of the back and sides of the trunk.

Nervous Disturbances. Headaches and sleeplessness were the commonest nervous symptoms. One case of post-diphtheritic paralysis has been alluded to. Two other cases of paralysis of the palate in improperly treated patients were reported to me by other physicians. One patient in my series had an attack of herpes zoster five weeks subsequent to the diphtheritic infection and another had tingling and some anesthesia with slight failure of co-ordination in both arms six weeks subsequent to infection.

Albuminuria. Albumin was found in the urine of one-fourth of the patients and was usually accompanied by hyaline tests; in those followed up, it disappeared within four weeks.

Rash. In three other patients besides those previously mentioned a severe rash appeared usually about sixteen days from the onset of the illness. The trunk and limbs were most affected. Accompanying the appearance of the rash there was a rise in temperature, frequently pain in the joints, itching and burning of the skin, and marked nervousness. Within thirty-six hours the rash usually disappeared, often to return again transiently for a few hours.

Special Cases. The case of conjunctival diphtheria is perhaps worthy of special mention. The patient had an area the size of a dime on the lower outer tarsal conjunctiva of the right eye. It did not involve the eye-ball and attracted the patient's attention more because the lymph glands in front of the ear and along the neck became suddenly swollen and painful. He had the feeling that something was in the eye and the lower canthus was drawn down and the lower lid slightly averted. His temperature was below 100° and except for a general feeling of malaise, headache, and lack of appetite he complained of nothing. The throat was at first clear, but later some small patches of membrane developed upon the tonsils. The patch on the conjunctiva had a soft base, was irregular in outline, light grey in color, slightly elevated and with well-defined edges. A culture made from a piece of detached membrane showed a pure culture of bacilli, presenting microscopically all of the morphological features of the Klebs-Loeffler bacilli. No animal experiments were made. Antitoxin was promptly given and for a short time there was no local treatment in order to test the therapeutic effect of the antitoxin. After the first injection the progress of the infection was stayed and after 12,000 units had been given the patch gradually shrunk somewhat and the glandular swelling became smaller and less painful. Ice and ichthyol ointment were applied over the glands and later boric acid solution and calomel powder were used in the eye. The patient ran a very irregular temperature. Within a few days from the beginning some discharge appeared in the conjunctival sac and cultures showed staphylococci present. No Klebs-Loeffler bacilli were found at the end of three weeks; the patches disappeared from the throat soon after and the patient was discharged at the end of a month, although the glands were still somewhat enlarged. It was feared at first that the lesion was a chancre, but the prompt reaction to antitoxin and the progress of the case seemed to make a diagnosis of diphtheria clear.

Treatment. With one exception all the above patients had from 4000 to 36,000 units of diphtheria antitoxin. An effort was made to administer this as promptly as possible after the case came under observation. When there was a suspicious appearance of

* *California State Journal of Medicine*, August, 1904, page 240.

throat, 1000 units were given. If the clinical appearance pointed strongly toward diphtheria, 4000 were given at the time the first culture was taken. The results from the use of antitoxin were most satisfactory. Within twelve hours improvement was usually evident. The throat became less painful, the glands less tender, the membrane began to shrivel slightly and to loosen at the edges. If the membrane did not promptly separate the antitoxin was repeated within six or eight hours. The laryngeal cases were given 4000 units every four to eight hours until improvement was noted. No attempt was made to use a minimal dose but the antitoxin was used whenever the membrane seemed adherent or inclined to spread. Frequently when small areas lingered on the tonsils three or four thousand units would promptly loosen them. In some cases new membrane formed rapidly over the site of the previous one, and in the nasal case, after a mass the size of a small oyster had become loosened and was removed by forceps from each post nares, membrane formed over the tonsil and required more antitoxin to loosen it.

The value of the antitoxin needs no corroborative testimony from me but the results were frequently so striking as to amaze one. The sense of security, that its use gave the patient, as well as the physician, was of great help in controlling the epidemic. In fact, it worked so well sometimes that it was hard to convince the patients that the diagnosis was correct.

The limitations and value of the use of antitoxin were illustrated in one family where, because of probable exposure to a case in school, one of the children in the family came to me. He complained of some dryness and pain in the throat, but only came to get a prophylactic injection of antitoxin. Upon examination small greyish adherent patches were found on both tonsils which showed Klebs-Loeffler bacilli. A visit to the house showed that the three other children, the father and mother and Japanese cook all had patches on their tonsils. Injections of antitoxin were given to all, varying in amounts and repetition, according to the amount of membrane. All did well from the first except the Japanese, whose membrane extended over both tonsils and the uvula for a couple of days before disappearing. In a few days they were all so well that some of the family became skeptical of the diagnosis, but the youngest child, who had received only 2000 units and who, except for one small persistent patch on the tonsil, was apparently well, two weeks later ran around the cold floor with bare feet for an hour or so. Immediately the throat became very painful and a membrane involving the whole pharynx developed and was only controlled by 24,000 units of antitoxin.

Besides the antitoxin the principal treatment was in the use of proper diet, the procuring of rest, the frequent use of simple alkaline gargles, and the application of various external agents, ice, ichthyol, etc., to the neck to relieve the pain of swallowing or to prevent edema in some of the severer cases.

Diet. An effort was made to give each patient nourishing simple food that could be easily swallowed, and for ten days light diet was the rule. If during that time albumin was found in the urine, milk was made the basis of the nourishment.

Rest. I was particularly impressed with the desirability of having as near absolute rest as possible, even in the mildest cases, especially as long as any exudate lingered in the throat. Afterwards even before the throat was bacteriologically clean, unless the pulse was too slow or too irritable, a certain amount of fresh air and moderate exercise seemed most beneficial.

Gargles and Sprays. Strong antiseptic solutions were not found to be of benefit except in cases where the lacunæ of the tonsils continued to fill with an exudate rich in diphtheria bacilli. Here, tincture of ferri chlor in glycerin aa was found useful. Dobell's solution or some other alkaline gargle, frequently repeated, gave the patient comfort and seemed to do as much good as any other form of local treatment tried. When a rash occurred it was usually promptly relieved by thorough purging, and the use of alkaline washes or carbolic acid in a solution of magnesia applied locally.

Recovery. Recovery in even some of the mild cases was quite prolonged and for two months after the onset most of the patients reported themselves as still feeling the effects of the disease in lessened energy, more frequent headaches, etc. Still, two of the men who had extensive membrane formation with marked systemic symptoms recovered rapidly enough so that by careful training they were able to play in an intercollegiate football game within a month after leaving the hospital, and they suffered no ill effects therefrom.

Rash. The question as to the antitoxin as a cause of heart failure, albuminuria, nervous symptoms, etc., need not be gone into here, but as the causative factor in the appearance of the rash a word might be added. In the diphtheria cases the rash sometimes came where fairly considerable amounts of antitoxin had been given, and seemed prone to come where the membrane had been resistant to the antitoxin and suddenly loosened, leaving perhaps a considerable amount of surplus antitoxin in the blood. Among the individuals given prophylactic doses I saw only three cases of urticaria. This was in one case, my own, purely local and limited to the sight of the injection, and, while accompanied by severe itching and burning, only lasted a couple of days, but recurred upon subsequent injection. I saw four cases of general urticaria, probably gastrointestinal in origin, in patients, who had neither diphtheria nor antitoxin during the time that the diphtheria was prevalent. Some cases of rash with diphtheria where no antitoxin was given have recently been reported, and I reported to this society several years ago a short series of cases of follicular tonsillitis accompanied by rashes similar to those seen during the present epidemic. I am inclined to believe that the diphtheria antitoxin gets the credit at times for eruptions upon the skin caused by the absorption of toxin from a mixed infection of the throat or due to digestive disturbances.

General Plan of Control of the Cases. In getting control of the present epidemic the plan of procedure was to consider all cases of throat infection, no matter how mild, diphtheria until cultures had proved them otherwise. The suspected patient was kept by himself in his room until the diagnosis was made. When the diagnosis had been made the patient was either quarantined where he lived or sent to a hospital arranged for such cases. All directly exposed individuals, and by this was meant all those living in the same house, including servants, or those eating at the same table, had their throats examined and had their choice between being quarantined for a week or ten days to see if the disease would develop and receiving a prophylactic dose of antitoxin. The latter alternative was invariably chosen, although a couple of days of quarantine was sometimes needed to bring about a proper appreciation of the value of antitoxin. Where one or two cases had been found in a fraternity house or a club, injections were given to all and they were all instructed to use an antiseptic gargle. All of the dishes were boiled in soda solution. The rooms of the diphtheria patient were shut up and promptly fumigated with formaldehyd. In five instances at least eighteen or twenty people had been in direct contact with the diphtheria patient and yet in none of them did diphtheria develop after antitoxin was given. In all I have a record of 287 prophylactic injections of antitoxin. By far the greater part of these were given to those directly exposed to the disease although in a few families it was given as a precautionary measure. Its value was very great. At first a few injections of 500 units were given, but in one boy, two weeks following an injection of that amount, a small membrane developed, so that a dose

of 1000 was made the rule. Not a single one of this series of 287 developed diphtheria except as just noticed. As two weeks is considered as the early limit of the prophylactic effect of the antitoxin, the percentage of cases of diphtheria occurring in this series of prophylactic injections is practically nil. The nurses who cared for these patients were advised strongly to take antitoxin. Two did not until a membrane began to develop in their throats, but by the prompt use of antitoxin they were soon able to go on with their work.

Certainly we have in the prophylactic use of antitoxin a most efficient means of controlling diphtheria epidemics. With the small volume of serum now needed to give 1000 units of antitoxin it is a very simple thing to administer. I found the loose tissue under the left shoulder blade, the best place for the injection as the process could not be seen by the patient and caused very little pain. Occasionally there was numbness and tingling in the arm upon injection, but it soon disappeared. Muscular exertion soon after the injection was often painful and left considerable soreness. This was noticeable in cases I saw that had been injected in the arm or leg. There was an occasional complaint of headache or dullness and frequently the parents reported that a child had slept at an unusual hour or unusually long following the administration of the antitoxin. In two cases a sharp local reaction followed the injection of curative doses and caused great swelling and pain. A free purgative with the application of local moist heat soon brought things to normal.

Disinfection. The rooms of diphtheria patients were carefully treated with formaldehyd vapor. As ordinarily used it did not seem very effective and someone even reported a live fly in a room after the formalin fumigation was over, but when combined with steam in the generator or when water is allowed to boil in the room while the formalin is being evaporated it is, especially when used with the formalin spray, I think, the best means we have of fumigation in private houses. The duration of the quarantine of these cases varied from one week to four. Patients with large tonsils full of crypts retained the bacilli in them and the throat longer than others. The first sign of the disappearance of the bacilli was usually a marked anemia of the throat. All patients were held until two successive negative cultures taken twenty-four hours apart were obtained. If any exudate was present on the tonsil the culture was made directly from it. The greatest difficulty experienced was in keeping the patients contented in quarantine after they felt well and the throat seemed clear. No method of gargling, etc., tried seemed more effective than another in hastening the disappearance of the bacilli. Occasionally an injection of antitoxin even when the throat was free from membrane seemed to shorten the clearing up of the bacilli from the throat.

Looking back over the epidemic and considering the number of cases seen in about six weeks time, and the opportunities offered by the dormitory and club house for the spread of the disease it is certainly gratifying to record that no new cases have appeared for about two and a half months. I take it that this shows the value of strict quarantine and the free use of prophylactic injections of antitoxin in controlling diphtheria.

When you move, do not forget to send your change of address to the office of the Society immediately.

POST-OPERATIVE VENTRAL HERNIA—ITS CAUSES AND PREVENTION.*

By C. GEO. BULL, M. D., Alameda.

THAT hernia of the abdominal wall may follow celiotomy is too well known to require more than a bare statement. Its frequency varying from 1% in clean cases to between 20% and 25% in septic cases is very suggestive. Let us first, however, examine into its more frequent causes and we shall then be in a better position to determine how to prevent it.

The main causes are briefly as follows:

Drainage; a relatively long incision; wounds healing by granulation; failure to bring fasciæ into proper apposition, resulting from method of suture, tension of fascia, direction of incision, etc.; division of nerve supply to the muscles of the abdominal wall, usually more frequent in section for operations on the biliary tract, by reason of the oft times unavoidably long incision and consequent destruction of motor terminals of the intercostal nerves, though hernia above the umbilicus is somewhat rare; vomiting or straining from any cause and abdominal tension from flatus may provoke hernia if occurring before the wound is firmly united; and finally, according to Kelly, patients rapidly accumulating adipose tissue after operations, thus increasing intra-abdominal pressure.

Drainage. Hernia appearing in the scar was undoubtedly more frequent when drainage was the rule and I think surgeons are pretty well agreed that more hernias occur after drainage in abdominal operations than after sections that are not drained. The reason is obvious, inasmuch as we obtain imperfect fascial and muscle approximation at the site of the drain and often a poor quality of granulation tissue. "The frequency of hernia after operation for appendicitis with abscess," says Deaver, "is a strong argument for early operation." This brings up the question of whether to drain or not. Not long ago, drainage was customary, especially if the slightest doubt was entertained as to its propriety. Now, the reverse obtains and, of the many abdominal operations I witnessed both in the East and in Europe last summer, I recall but two in which drainage was used. We know that the peritoneum can dispose of septic fluids as well as even fair sized septic masses if its vitality be intact and this ability of the peritoneum, or its resistance to infection, is much more marked in some individuals than in others.

Dr. Stillman† of San Francisco, made the assertion, in a paper read before the State Society at Santa Barbara two years ago, that more cases of septic peritonitis recover without drainage than with it. Of course, this excludes pus cases. Pus in the abdomen must be evacuated and drained just as it is elsewhere. Olshausen, of Berlin, at whose clinic I spent some time last year, teaches that the peritoneum as a whole can not be drained, but will drain itself toward the diaphragm if unmolested, always providing the toxemic condition be not too virulent, so as to destroy its function. Rather than drain an acute, advancing peritonitis and thus nullify by interference what little resistance to sepsis it still had, I would wait till its violence began to subside, unless there were pus present or perforation. If then, we drain only in pus cases—and many of these do not need drainage if the abscess is localized and can be thoroughly wiped out; e. g., the pus about a ruptured appendix or tube prevented, by limiting adhesions and by gauze introduced for the purpose, from soiling the peritoneum—we will correspondingly diminish our hernia possibilities. If drainage is used, however, it is a safer proposition to suture the fascia at the site of the drain after its removal. This should be especially insisted on if the drainage has been prolonged, the liability to hernia being thereby rendered greater.

*Read before the Alameda County Medical Society, January, 1905.

† *California State Journal of Medicine*, Volume I, page 334.

Length of incision is a very important factor, particularly if it necessitates cutting muscular tissue crosswise and fascia irregularly, though most of the incisions I saw abroad were much longer than those in this country. Length of incision has special influence in biliary operations, where the firm attachment of fascia to the costal cartilages makes it very difficult to get good approximation, and also in its liability to cause cutting of nerve filaments. The difficulty of properly approximating fascia is markedly noticeable in an incision begun as a McBurney (or gridiron) for appendectomy and then enlarged. This is sometimes a necessity, by reason of finding extensive adhesions, pus, gangrene of the cecum entailing resection, etc., which were not suspected before opening the abdomen. In these cases, of course, if the condition is known, it is better to make an incision near the outer border of the rectus. Then accurate closure of the tissues of the wound after drainage is not so uncertain.

Wounds healing by granulation and particularly infected wounds rarely unite fascia to fascia accurately and it is, therefore, wise in these cases to suture the fascia after danger of infection is over. Infected wounds may follow drainage; infection within the peritoneum, as from a ligature, imperfect hemostasis causing accumulation of blood in the wound; or the suture material used—even a stitch hole abscess or one from pressure necrosis from tight suturing frequently preventing primary union in part of the wound. Primary union, then, throughout the whole of the wound is an important factor in the prevention of hernia and such union is most likely to occur when there is no infection, no blood clot, the sutures are not too tight and the patient is in fairly good condition.

Failure to bring fascia accurately together often occurs in stitching up the abdominal wall and when it does, is of course, a most fertile source of hernia. Kelly says, "On the fascia over the recti, the whole strength of the lower abdomen depends," and the same is true of the fascia over the obliques and the transversalis in great measure, as one is continuous with the other. We are often hampered in our efforts to approximate fascia by muscular tension, and in such cases we may sometimes succeed by separating the muscular fibres from the fascia for some distance.

Division of motor filaments of nerves needs some mention. It can usually be avoided, in part at least, by making the incision parallel to the nerve fibres if possible. Where it can not be entirely prevented the number of filaments cut may be reduced. For instance, in operations on the gall bladder and bile ducts, if an incision be made through the rectus from a little below the eighth costal cartilage to the umbilicus, sufficient room will be gained and only the ninth intercostal nerve will be divided. Sometimes division of nerves is unavoidable; it is well, however, to bear in mind the possible weakening of support of the abdominal wall resulting therefrom.

The probability of this contingency and the difficulty of approximating the fascia made tense by firm attachment to the ribs and costal cartilages are the chief reasons for hernia occurring after operations on the biliary tract through the usual incisions.

Tympanites is to be prevented by thorough catharsis and dieting before operation and the use of proper evacuants within a reasonable time after operation, say twenty-four to forty-eight hours.

Vomiting may usually be prevented by careful preparation before operation and keeping the stomach empty for some time afterwards, gastric lavage being often very useful. Strain from sneezing or cough may be largely prevented by the use of broad adhesive straps.

The means of preventing rapid increase of flesh after laparotomy are obvious. A supporter may be of service.

Make incisions as small as compatible with the ability to complete the operation in a reasonable time.

Split instead of cutting muscles transversely or diagonally. Split the rectus at its outer or inner border instead of going through the linea semilunaris or linea alba.

Drain only when absolutely necessary and then use a small drain, closing the rest of the wound carefully. As soon as the drain is removed and any danger of infection is past, stitch the fascia that is not united.

Close incisions layer by layer and bring like tissues into careful apposition, particularly fascia, with some fairly durable material and do not tie the sutures too tightly.

My preference is for a formalinized-gut continuous suture for each layer, or plain gut for the peritoneum with chromicized gut for the rest, which will hold for some weeks if properly prepared. Czerny, of Heidelberg, told me he was using celluloid silk. But, whatever material is used, it should hold at least three weeks. While speaking of durability, I might state here the experience of a well-known surgeon who, having used the through and through method of suturing, finding union apparently complete, removed the stitches on the eighth day, when the patient suddenly sneezed and the bowels protruded through the abdominal wall; showing union is none too firm at that time.

The advocates of through and through sutures state that layer suturing is apt to leave so-called dead spaces which allow collections of blood and serum, retarding union, if not preventing it, and sometimes giving rise to abscess. This is easily avoided by stopping all oozing before suturing and by occasional catching up of a portion of the tissue at the bottom of the wound as the next layer above is being sutured. I am informed, however, that hernias are rare at the Alameda County Infirmary where through and through suturing is the rule. It seems to me that this method can not be relied on to properly approximate like tissues, and, consequently, is not certain to unite fascia with fascia throughout the length of the incision, and the strength of the wound depends almost entirely on good fascial union.

Tympanites should be avoided, vomiting and strain prevented. Reliance is not to be placed on abdominal supporters, but, in my judgment, it is very important to keep patients in bed for from three to four weeks after operation (this in a clean case, healing by primary union), as the union is not strong enough before this to stand much strain. For a number of years past I have endeavored, as far as practicable, to carry out these plans of procedure and have been gratified at not being able to trace any hernias resulting from my operative work.

An analysis of these later operations—which, though modest in number, are somewhat varied—with reference to hernia is herewith appended.

There were twenty-six appendectomies; twelve ovariotomies, including cysts, pus tubes, etc.; two operations for ectopic pregnancy; three ventro-suspensions for rectroflexion; four hysterectomies; four Bassini operations for radical cure of hernia.

Of course, these operations were all abdominal. Of the appendectomies fourteen were in females, twelve in males. The incisions varied in length from 1¼ inches to 3 inches according to the nature of the case, thirteen were done by the gridiron method of McBurney; two begun as McBurney's had to be enlarged; three were by incision in direction of the fibres of the external oblique, between Poupart's ligament and McBurney's point on account of the situation of pus; eight were by incision at the right border of the rectus, cutting its sheath transversely and pulling the muscle inward, after the method of Weir; four were drained; two had fecal fistulæ; three had stitch abscesses. Of the other operations

nineteen were done through a split rectus muscle and six through the oblique. The length of the incisions was from 1½ to 4 inches. Three had stitch abscesses; one was drained. I have included no operations done later than a year ago.

I wish here to express my indebtedness to a number of surgeons for kindly answering inquiries germane to this paper.

THE ETIOLOGY OF LOCOMOTOR ATAXIA.*

By J. O. HIRSCHFELDER, M. D., San Francisco.

OF ALL the nervous diseases, one of the most frequent and most interesting is tabes dorsalis. Its etiology, through the observations of Fournier and Erb, has been made so clear that few to-day will doubt its relation to syphilis. Large statistics, as well as careful investigations of individual observers, have proven conclusively that only a small percentage of cases is found in which previous syphilis cannot be demonstrated. When we bear in mind how often syphilitic infection is denied in cases of well-marked lues of the skin and other organs in which the cause is written upon the body in such plain letters that "he who runs may read," we will not be surprised that in a certain proportion of the cases of locomotor ataxia, lues cannot be proven.

In his latest pronouncement upon the subject, Erb has presented statistics of 1,100 cases observed by himself in which the question of previous syphilis has been most carefully considered. He finds lues to have preceded in 89½ per cent of the cases, whereas among 10,000 diseased individuals not affected with tabes, only 21.5 per cent of syphilis could be found.

His results are confirmed by observers in other lands:

Fournier in France found 93 per cent.
Collins of New York, 80 per cent.
Dana, 68 per cent.
Byron Bramwell in Edinburgh, 76 per cent.
Anfimow in Russia, 83 per cent.
Sarbo in Budapest, 86.6 per cent.

A collection of 6,000 cases collated from various authors gave over 80% of syphilis.

My very limited experience corresponds with these observations. Among 54 cases of locomotor ataxia observed at the Cooper Medical College Clinic, 35 had undoubted syphilis. With 5 the subject was not mentioned, whereas 2 were doubtful, and only 12 specifically denied previous lues. Among these, many, no doubt, either overlooked the previous infection or willfully prevaricated. However, leaving all of the doubtful cases entirely out of consideration, the 70% with whom syphilis had been observed speak loudly enough for the validity of the observations of others. It may be safely stated that nearly all unprejudiced clinicians of large experience to-day look upon syphilis as the only positive proven etiological factor in locomotor ataxia. A large number of other causes have been assigned to the disease, but the evidence upon which these assumptions have been made is not sufficiently great to bear critical scrutiny.

Dr. Collins, of New York, has presented his conclusions, drawn from a most careful analysis of 140 cases observed by him. He is unable to find any positive evidence pointing to any of the usually assigned causes of locomotor ataxia, such as sexual excesses, alcoholism, trauma, exposure to wet and cold, or worry, having any causal relation to the disease in the absence of syphilis. The acceptance of these deleterious influences as causes of tabes is merely another illustration of the tendency to receive statements without due and critical investigation.

However strong the clinicians may plead for the luetic origin of locomotor ataxia, there is great difficulty in persuading the pathologists of the truth of that doctrine. Virchow has always assumed an antagonistic position, and his teachings have been accepted by the large majority of pathologists. They are absolutely unable to find any indication of luetic origin in the far larger proportion of cases that come to autopsy. A small number of individuals who during life had shown the clinical symptoms of the disease, upon autopsy are found to have the gummons infiltration of the cord that is characteristic of syphilis, but these findings are quite rare. In the ordinary cases nothing can be found other than the usual sign of gray degeneration with increase of the neuroglia, such as will be found in any case of chronic myelitis.

Lately, however, Lesser has called attention to some facts which had been overlooked heretofore, and which may throw some light into this dark field. Lesser assumes that in addition to the secondary and tertiary forms of syphilis with which we are familiar, a quartan form may be recognized which manifests itself in interstitial infiltration in various organs attended with secondary parenchymatous degeneration. He finds these signs of quartan syphilis in most cadavers of luetic individuals, usually in the form of interstitial infiltrations in kidneys, livers and testicles. In these organs where the lesion is not extensive, the trouble is not recognized during life, as the function of the lost tissue is well compensated for by the healthy structure remaining. He calls especial attention to the syphilitic lobulated liver, to the syphilitic fibrous orchitis and to the smooth atrophy of the base of the tongue, the syphilitic character of which was pointed out by Virchow in 1860. In the latter disease we have an interstitial degeneration which is attended with a secondary degeneration of the glands at the root of the tongue.

In a similar manner Lesser believes that in the presumed quartan form of syphilis an interstitial myelitis develops with secondary degeneration of the axis cylinders of the cord, producing tabes. That the degeneration should be localized in the posterior columns seems no more strange to him than that the degeneration of the tongue should always be localized at the root only, or that the special form of orchitis fibrosa, which he considers quartan syphilis, should be restricted to the vicinity of the hilum. He likewise calls attention to the great frequency with which locomotor ataxia is associated with aneurism, a disease whose relation to syphilis is well recognized. Among 96 cases of tabes observed in the Moabit and Urban Hospitals of Berlin reported by Lesser, 18 were likewise affected with aneurism. Like all of these forms which Lesser considers quartan syphilis, tabes also appears many years after the primary affection, and shares with that disease the peculiarity of not being amenable to anti-syphilitic treatment.

A further confirmation of the syphilitic origin of tabes has lately been afforded by the cytological examination of the cerebro-spinal fluid removed by lumbar puncture. Attention was first called to this subject by Widal, who claims to have shown that in tabes and all other forms of syphilis of the cerebro-spinal tract, a marked increase of the mono-neuclear lymphocytes can be found. His observations have been quite generally confirmed.

It is unfortunate that we cannot, as a rule, prove the luetic character of tabes dorsalis by cure of the patient with anti-syphilitic remedies. It is true that a certain number of patients respond beautifully to that treatment. Everyone who has seen and treated many cases will occasionally have been gratified by the results, but in the larger number of instances neither mercury nor iodid will bring about any improvement. Yes, on the contrary, with many there is a distinct and well-marked increase of the trouble. This resistance to anti-syphilitics we have learned from Lesser is peculiar to all of the quartan forms of syphilis. The frequent occurrence of the paralyses of the oculomotor nerves and of the optic has always

*Read by title at the Thirty-fourth Annual Meeting of the State Society, Paso Robles, April, 1904.

been a stumbling-block in the way of all explanations of the histogenesis of locomotor ataxia. The frequency with which oculomotor paralyses occur in syphilis not attended by tabes seems to confirm the luetic theory.

In 1894 Edinger, of Frankfort, proposed a theory on the etiology of nervous diseases, and especially of tabes, which should not he disregarded. This theory is based upon the fundamental proposition that the molecules of a cell are in a state of labile equilibrium such that if one part becomes enfeebled, it is overthrown and strangled by its neighbors. In a similar manner components of tissues are hypertrophied at the expense of enfeebled constituents. When a cell performs its functions normally, its contents are destroyed, but are immediately replaced in the regeneration which occurs. If the cell be overexerted or enfeebled by toxins or other poisons, the connective tissue luxuriates, and we have an interstitial hypertrophy resulting. There is no question that in the normal performance of function, substances are destroyed which must be replaced. The difference in histological appearance and in reaction to stains between cells that have performed their function and those which have rested has been clearly demonstrated by Daschkiewicz, Hodges and Nissl.

Edinger presupposes an increased vulnerability of the spinal cord through the influence of syphilis, possibly through a toxin. He calls attention to the fact that of all nerves of the body, those which rule over the maintenance of the equilibrium are the most frequently called into action, and are those which suffer the greatest wear and tear in the ordinary functions of life. It is just these organs of coordination which are injured the soonest and the most severely in locomotor ataxia. Edinger ascribes this fact to his theory of diminished recuperation. According to him, the first thing that occurs in the luetic individual who is about to become tabetic is a diminished recuperation of the system of nervous elements that bring about coordination. In consequence thereof, the uninjured neuroglia tissue luxuriates, and a sclerosis results.

In the spinal cord, when an injury occurs at any one point, secondary degeneration of the whole system to which that part belongs results, and as a consequence we have the anatomical changes characteristic of tabes. This explanation renders it clear why tabes nearly always begins in the lower extremities and arises so frequently in those who exert the lower extremities to a great extent.

A careful examination of the mode of life of those who become affected with high tabes arising first in the upper extremities may lead to its explanation by this theory.

In a similar manner, Edinger explains the peculiar action of the pupils in locomotor ataxia. The pupils are normally constantly undergoing changes due to varying degrees of light, and the nervous elements involved in the reflex act are subject to constant strain. Through the diminished recuperative power, he presupposes the disturbance that we recognize as the Argyle-Robinson pupil results. Of the muscles around the eyeball, the levator palpebræ, the abducens and the rectus internus are the ones most frequently called into action, and as would be demanded by Edinger's theory, these are the ones most frequently involved in tabes.

It is by no means improbable that the atrophy of the optic nerve may be explained in a similar manner, and it will be of interest to determine to what extent eye-strain forms its etiological factor in the cases of locomotor ataxia in which it occurs.

Sanitation of Railway Cars in Kentucky was instituted in the latter part of 1904, and after some little trouble from the railway companies, the State Board of Health succeeded in enforcing its regulations. The supervision extends to cars of all sorts.

ACUTE DELIRIUM.*

By H. E. SANDERSON, M. D., Stockton

THE closeness with which this affection is allied to the distinctly somatic affections met with in general practice, and the shortness of its course with lethal outcome, render it of more than passing interest to the profession at large, and entitle it to your earnest consideration at this time. When you remember that in the cases I am about to describe the patients were sent to us from considerable distances by rail, and in some cases from general hospitals, to die within a few days after admission, necessity of bearing in mind the existence and leading characteristics of the disease will be evident.

Status and Etiology. The present status of acute delirium is a much disputed point amongst alienists. It was recognized by the ancients who termed it phrenitis. In 1884, Luther Bell described it under the name of typhomania, since which time it has also been commonly called "Bell's Disease." Spitzka, in 1883, first used the term delirium grave. Other writers have failed to mention it as a clinical entity until recent times, and even now much confusion is caused by trying to place all cases manifesting delirium in the same category.

Coming down to the present time, we find a great diversity of views amongst writers. Clouston speaks of it as a phase of severe primary mania, and calls it delirious mania. He terms it "a further stage of acute mania," and takes issue with other authors in their prognosis of the affection. Kraepelin calls it a "symptom complex" and not an independent disease. He views it as a pathological condition developing in the course of various psychoses—especially dementia paralytica, mania, acute alcoholism, and active melancholia. He terms it an irritative brain lesion of sudden development soon passing into paralysis. But, while maintaining that similar symptoms may follow in the wake of pneumonia, myocarditis, and septicemia, he admits that it may occur as a primary brain lesion. The majority of French psychiaters, de Boismont, Ball, Brand and others, look on acute delirium as being an individual disease. Mendel, Furstner, Meynert, Schuele and Alzheimer regard it as a symptom complex. Dr. Soukanhoff is of the opinion that acute idiopathic delirium is by its evolution and course nearer in semblance to an infectious disease than to anything else. The same opinion was held by Briand, Bianchi, Puncinnino, and Rosari. Berkeley thinks it a matter of doubt as to whether it should be considered an entity or only a symptom complex. He says "in the few cases it has been my fortune to see, some diagnosis other than delirium acutum—principally post febrile or meningitic delirium—would have been equally justifiable," and cites the fact that similar symptoms occur after a host of infectious troubles—especially pneumonia, typhoid, typhus, phthisis, dysentery, measles, acute rheumatism, influenza, the puerperal state, and gastric cancer.

Kellogg regards it as a distinct form of mental disease, and says the term should be limited to those independent acute delirious manias which present the typhoid symptoms and run the hyperacute course described. He speaks of suppurative kidney and pulmonary disease, and surgical operations accompanied by prolonged anestbesia as causative factors while some cases can only be accounted for on the theory of perverted metabolism and auto-toxemia. Krafft-Ebing considers it a distinct affection due to "certain injurious circumstances acting upon the brain, primarily through the vasomotor nervous system, causing hyperemia, through paralysis of the vessel walls." He mentions long-continued hard struggle for existence as a common factor, though in a large majority of cases the patients are predisposed to nervous troubles and excessive vasomotor irritability. Schuele

* Read before the San Joaquin County Medical Society, December, 1904.

has known it to result from excruciating physical suffering. In most cases it was noted that the patient —usually between 20 and 40—who has for a long time been in a feeble state of health, suffering from malnutrition or nervous prostration, (due frequently to poverty or drunkenness) experiences some extra strain on the nervous system. Such a strain might occur from emotional shock, due perhaps to an unhappy love affair, alcoholic excess, business crisis, or the puerperal state, which would precipitate the outbreak of delirium. Abandonment of seduced and pregnant girls is a prominent element in the history of some cases. The recorded cases of "meningitis from overstudy" are in reality instances of acute delirium, and are brought about as much by the emotional strain attendant upon competitive examinations as by the mental effort itself. Other assigned causes are the menopause, insolation and trauma. With such causes, an instability of the central nervous system would be induced; and the presence of an irritating and debilitating poison, whether from within or without, would more easily overturn the mental equilibrium.

Spitzka says: "It is never a strong mind nor a healthy body that suffers in this way, but one inherited from a feeble ancestry, and our school system is not to be blamed for it." Macpherson, while admitting the fact that acute delirium occurs sometimes in predisposed persons as a consequence of profound physical and nervous prostration, and malnutrition, considers that it is the immediate result of bacterial toxins, and places it in the list of "forms of insanity resulting from autointoxication or microbic toxins." A number of investigators have described bacteria found in the urine, blood and other parts of the organism, in cases of acute delirium. Sir John Baty Tuke described a long, rather thick, bacillus with numerous spores found in the urine and blood. Babcochi found in the cerebrospinal fluid prior to death the micrococcus pneumoniæ crouposæ and streptococcus pyogenes aureus, the former in great numbers, the latter in scattered chains. Ceni found in a series of experiments that the blood of the insane suffering from intense motor unrest, and that of animals whose muscular systems had been severely exhausted by the continuous application of faradism, form a favorable culture medium for the growth of bacteria. One must, however, remember that in the blood of the insane generally, the presence of pyogenic organisms has been frequently determined.

Bianchi obtained from the blood of patients with acute delirium a certain organism, having the form of a bacillus, two or three times as long as broad, and with tendency to unite in chains. It was mobile, stained with the ordinary aniline colors and by the Gram method and was non-sporific. He cultivated it in agar and in broth. Various forms of cocci, specially the streptococcus and staphylococcus were also found in large numbers. He regards the bacillus as peculiar to the affection and has found it in autopsies in the subarachnoid and ventricular fluids. Ceni found only staphylococci, and believes the microorganisms found are only of secondary importance.

The various researches on the bacterial origin are seen therefore to be by no means in accord; nor indeed could accord be expected, inasmuch as the inciting sources of the disease are so manifold. Some of the cases described as acute delirium have been either aggravated phases of a primary psychopathy, or the expression of other intoxications. We are warranted in inferring that certain cases are due to inoculation with the toxin productive of primary and genuine acute delirium upon ground already occupied by other psychopathies. We should not include under acute dilirium, mere episodes of other mental troubles which somewhat simulate it.

The following cases occurred at the Women's Department of the Stockton State Hospital during my term of service, beginning January, 1895.

L. W. Age 45, widow, keeper of boarding house, American. Admitted March 16, 1895. Family history unknown. Before admission for five days was boisterous, very talkative and violent. Ran away from her home and refused to return. History otherwise unknown. March 18—Noisy, incessantly talking and incoherent. Refuses food and drink. Has profuse muco-purulent expectoration. Always expectorates on the floor. March 21—Has not changed since the 18th. No rise of temperature; respiration normal; pulse 100, normal in frequency and strength. Physical examination negative. Bowels constipated. Mouth has sordes on tongue, lips and teeth. Is delirious. April 13—Patient has been delirious since last report. Died today. No postmortem allowed.

A. W. Age 20, single, dressmaker, American. Admitted April 29, 1897. Family history unknown. Before admission had previous attacks of insanity; nature not given. Has been insane for two years. Imagined she had a man and a baby in bed with her, and that she was in some strange place, while at home. Has repeatedly threatened suicide. Is said to have been subject to hystero-epileptic convulsions. Irrational and incoherent; hallucinations of sight. On admission, is prostrated; tongue dry and coated; sordes on teeth; delirious; slight eruption of acne in places. Physical examination negative. Is noisy at times and picks at the bed clothes. May 1—Is in a stuporous condition. Occasionally screams. No fever. Respiration 30; pulse 90. Physical examination negative. May 3—Lies in a stupor all the time. Screams at times. No apparent hallucinations. Pupils equal and react well. Tongue dry and coated. Cannot be roused. Respiration 46; pulse 100. No rise of temperature over 100 since here. May 4—Looks worse. Temperature 102 F. this morning. May 7—About the same as when last recorded. Temperature has not risen over 101½ since yesterday. Respiration 40; pulse 100. Physical examination negative. In a stupor all the time. Receives considerable stimulants and nourishment. May 9—Patient died. No postmortem permitted.

B. C. Age 28, married, housewife, Austrian. Admitted May 3, 1900. Family history: Father had epilepsy. Before admission, attack began April 30, 1900. Claimed her husband put the children into the fire; also that he sold their little girl of nine years. Imagines the husband wants to kill her and that he is in love with another woman. She jumped out of bed and ran into the street cursing the neighbors. May 4—Was noisy when she first came. Is now irrational, incoherent, excited, violent and frightened. Talks to herself; kicks and bites. Pupils dilated and active. May 5—Looks worse. Has an herpetic eruption on the lips; sordes on the teeth and tongue. Breath foul; pale; pinched face. Temperature reached 103° F. Physical examination negative. May 7—Died.

Postmortem examination. Meninges congested; lymphatic engorgement in the pial vessels with opaque appearance. Pia somewhat adherent to cortex. Brain tissue much congested. Brain swollen, softer than normal, and edematous. Large amount of fluid between pia and brain and in the ventricles. Punctate extravasations in brain substance; light pinkish appearance in cortex. Injection of vessels extends into the spinal cord. Dura mater adherent to skull. Lungs show hypostatic congestion. Heart apparently not affected. Abdominal cavity quite dry; intestines empty and appear much contracted. Other organs somewhat congested.

L. M. Age 38, single, dressmaker, American. Weight, 200 pounds. Admitted May 29, 1901. Family history: One sister was insane. Before admission, destroys her clothing; tried to run out into the hallways of the building where she roomed. Will not talk. Imagined that men were coming and going from her room at all hours and that the house in which she lived was not respectable. Defecated on the floor. Attack began one week ago.

May 30—Is restless; stubborn; moans occasionally. Temperature 101° F. this morning. Pulse 90, full and regular. Quiet; no delirium. Will not talk except occasionally to reply briefly to questions. Lies down and rolls on the floor; refuses food; has to be restrained. June 1—Has temperature 102° F.; pulse 100; respiration 24. Physical examination negative except systolic murmur over mitral and aortic valves. June 2—Condition about the same. Temperature reached 103° F.; pulse 100; respiration 28. Tongue dry and coated; sordes on tongue, lips and teeth. No delirium. Vacant expression. Speaks only a few broken sentences. No hallucinations nor delusions apparent. In a stupor. June 3—Delirious. Temperature 102½; pulse 140; respiration 30. June 4—Temperature 102; pulse 130; respiration 36; stuporous. June 5—Temperature reached 104. Died No postmortem permitted.

G. P. Age 45, widow, domestic, French. Admitted July 28,1902. Family history unknown. Before admission, was noisy, turbulent, irrational in speech and actions. Hears voices and imagines that people are after her. Disrobes; threatens suicide; wishes to kiss everyone; pulls her hair.

July 29—Temperature 101° F. Pulse 120 intermittent. July 31—Will not eat. Thinks her food is poisoned. Is violent; frequently attempts to disrobe. Temperature 100° F.; pulse 140. Restless, noisy; talks disconnectedly. August 1—Restless; noisy; sleepless; delirious. Pulse 144; temperature 103½° F. August 2—Condition the same as yesterday; temperature 104° F.; pulse 144. August 3—Temperature 103° F.; pulse 120. August 4. Mind clearer. Talks a good deal. Temperature 101½° F.; pulse 129 August 5—Died 2 A. M.

Postmortem examination. Dura mater adherent to skull over the frontal lobes. Pia mater congested; lymphatics turbid in places. Brain wells out on removing skull; large increase of fluid; brain softer than normal and much congested, showing hemorrhagic points on section and pinkish appearance. Viscera normal except congestion of kidneys. Liver pale. Marked dryness of abdominal cavity. Stomach congested, especially at greater curvature.

J. N. Age 26, married, domestic. French. Admitted February 7, 1903. Family history unknown. Before admission, was in one of the leading hospitals of San Francisco for three weeks and sent from there to us. Patient entered there in a delirious state. Temperature 98.4° and pulse 92. On third day temperature was 99° and pulse 100. From then till end of first week temperature was one degree below normal. The second week she appeared well and acted rationally. At beginning of third week, again became delirious and maniacal, with hallucinations of sight and hearing. Beat her head against the bed, when not restrained, and attempted to jump out of a window. Temperature and pulse rate could not be obtained that week because of resistance. At the beginning of the fourth week (February 7, 1903) she was sent to this hospital. On admission here, temperature reached 100; pulse 80, and very weak; respiration 18. Face flushed; pupils widely dilated; lips dry and cracked; teeth covered with sordes; tongue dry and brown. Very restless. Tried to bite the attendants whenever they came near her. Seemed in great fear; resisted everything. Talked incessantly and incoherently, often repeating certain words. Refused food.

February 8—More restless. Makes automatic motions with the hands; has facial twitchings. Becoming more prostrated, and rapidly emaciating. Sleepless. Low muttering delirium. Such was in brief the course of the patient's symptoms during her five days with us. The temperature on February 8th reached 102½° F.; February 9th, 102½° F.; February 10th, 104° F.; February 11th, 104½° F., and a few hours before death on the 12th, 106° F. Died February 12th.

The treatment employed was mainly rest, quiet, nourishment, spongings, laxatives, and hypodermics of ergotin. Urine (obtained by catheter) showed small amount of albumen, a few casts, heavy deposits of urates; specific gravity 1025. Physical examination of chest and abdomen were negative.

Postmortem examination. Brain much congested and edematous. Largely increased amount of fluid between meninges and brain, especially collected over frontal lobes, flattening them somewhat. Pia somewhat adherent in places; course of lymphatics marked by white streaks. Sections show scattered hemorrhagic puncta; cortex has light pinkish appearance; congestion of brain extends down into the spinal cord. Rest of the body not examined through lack of permission.

Clinical Delineation. The typical course of the affection is as follows: A preceding history of prolonged mental or physical over-strain, or of alcoholic or sexual excesses. Prodromes of restless anxiety, despondency, forebodings of evil, general malaise, and disturbed sleep. Next, abrupt maniacal explosion, with great violence of motion, incoherence, boisterousness, gesticulations, vivid hallucinations. Then remissions of a few hours may occur. In a day or two, great exhaustion, automatic activity, delirious ideation, obscuring of consciousness, muttering, subsultus tendinum. Temperature rises to 102°F. or even 106°; pulse frequent and feeble; sordes on lips and teeth; tongue dry, brown and heavily coated. Semi-coma; convulsive movements, involuntary rectal and bladder evacuations; rapid emaciation and finally death within fourteen days of the first appearance of maniacal symptoms. Rarely the end may come in thirty-six hours or it may be delayed till the end of the third week.

In cases not resulting fatally, the comatose stage is not reached; the violence abates, and the patient is left exhausted in mind and body. After many weeks recovery may occur, but in one-half of these non-fatal cases, a partial recovery only is obtained, and the patient remains more or less demented.

Differential diagnosis. Concerning the differential diagnosis, it is necessary to distinguish acute delirium from:

1, acute alcoholism; 2, acute meningitis; 3, acute mania; 4, delirium of fevers; 5, paretic dementia.

1. In acute alcoholism, single symptoms may be similar, but the temperature is higher in acute delirium and the reduction of consciousness is more complete. The alcoholic tremor is wanting, though a coarse tremor exists in exceptional cases. When alcoholic excess has been an exciting cause the difficulty is greater. The motor symptoms of acute delirium are more those of cerebral irritation than of a mere psychical disturbance such as occurs in alcoholism.

2. In meningitis there is a very acute beginning, frequently an initial chill; early appearance of sopor, convulsions, stiffness of neck muscles, opisthotonos, general hyperesthesia, and less marked remissions—also may have well-marked paralysis. There are confusion of ideas and delirious excitement in both diseases, but the motor agitation is not so great and the reduction of vital force is not so sudden in meningitis.

3. Maniacal and melancholic frenzy are preceded by the ordinary and readily recognizable symptoms of those psychoses; while acute delirium is either sudden or preceded by a state of impaired consciousness of a kind not found in mania nor melancholia. The ideation is much more incoherent and shows either a frightened or an angry state. Speech rapidly deteriorates and the patient is finally unable to pronounce syllables. In mania there is no considerable rise of temperature nor acceleration of the pulse; and there is loquacity with a ready flow of ideas in place of inhibition or monosyllabic repetition. There is also not the increasing stupor nor hallucinatory-confusional delirium and not the general wasting found in acute delirium. Death in acute mania is rare, while very frequent in acute delirium. Even in the confusional form of acute mania there is not the rise of temperature; while obtundity alternates with prolonged periods of loquacious excitement.

4. Delirium of fevers. In pneumonia the delirium lacks the motor violence and is relieved by antipyretics. The dilirium of fevers in general is not of such an intense character and there is a difference in the temperature curve, in some cases a typical rash, together with a sequence in other symptoms unlike that of acute delirium. This is notably the case with typhoid fever.

5. Paretic dementia. In the galloping or so-called fulminating form of paretic dementia, there is a previous history of character changes or changes in mental disposition for months previous. Delusions of wealth and power; erotic ideas; hallucinations of fire and bloody scenes together with a general persecutory delirium, are here present. The temperature seldom rises so high and is more constant. Remissions do not occur with the same regularity in paretic dementia.

Pathology. The pathological processes resemble those of toxic or septic conditions. At first intense congestion of cerebral regions and following the hyperemia, venous stasis with edema. Effusions of blood corpuscles and leukocytes occur in the perivascular spaces, and the ganglionic elements are swollen or in process of disintegration. Sometimes punctate extravasations of blood in the brain substance; lymphatic engorgement; membranes injected and adherent; lungs hypostatic congestion or edema; sometimes lobular pneumonia; heart lax and contains dark fluid blood; muscles soft and pale from fatty or granular degeneration; blood dark and watery; liver, spleen and kidneys engorged; muscles atrophied; micro-organism at times in blood and urine; the hyperemia of the brain may extend to the cord; brain so edematous that it wells out of the skull cavity; cortex appears swollen and dotted with punctiform hemorrhages; the large vessels of the pia appear as white stripes; general musculature granular with wax-like degeneration. On the whole the condition of the brain points to a very low tone in the vessel walls, followed by a hyperemia of the vessels, while the vessels are apt to be varicose and tortuous. The basal ganglia are involved. Local areas of encephalitis exist. Transuded white corpuscles fill the lymph sheaths. Veins and arteries are packed with blood corpuscles. Plastic exudate forms in the spaces. Shrinkage of cells of brain occur and they are pressed upon by pericellular

coagulated exudate. Similar appearances, though less marked, are found after chemical intoxication—psychoses, collapse delirium of fevers, and more rarely after alcoholic delirium. In fact, the whole appearance might be described as that of infectious hemorrhagic encephalitis.

Prognosis. Prognosis is bad. Some few patients recover, but of these a large percentage are incomplete restorations, and show more or less evidence of permanent dementia. Most patients die within two weeks.

Treatment. The treatment is symptomatic. Nothing is of much benefit. Some claim good effects from ergotin injections. The patient should be kept in a large, well-ventilated, darkened, and rather cool room. The temperature of the room should not be over 60°, the patient kept in bed by a restraining sheet, and constipation relieved with croton oil, which also tends toward derivative effect. Reduce temperature by cold sponging or packs. Give as much nourishment as possible, including cool drinks, especially milk. Chloral hydrate should be avoided because of its tendency to induce cerebral hyperemia; and hyoscine because of its depressing effect. Morphin may occasionally be needed for allaying excitement. Bromides are useless. Hypnotics are also of no avail. Bleeding and counter irritation are not recommended. Alcoholic stimulants are needed when heart weakness appears. Care must be taken to avoid decubitus.

The number of admissions into the Women's Department of our hospital during the years covered by this investigation, namely from January 1, 1895, to March 1, 1903, was 864. This would make an average of one in 108 admissions. During each of these years, we have had one case of acute dementia, except in 1899, when there were none. In looking over the statistics of a number of the hospitals for the insane elsewhere, I find such a variation in the reported proportion of cases of acute delirium, that I am forced to the conclusion that the statistics have depended very largely upon the diagnostic acumen of the compilers.

Of fifteen typical cases described by A. S. Rowley of the Northern Michigan Asylum, in the *American Journal of Insanity*, six had insane relatives, and only three were known to have none such. Only two had no previous history of insanity. One had had epilepsy for twenty-three years. Only one appeared well nourished. Of the fifteen, only three survived. In reviewing our cases we find one almost the counterpart of each of the others, both as to symptoms, duration, termination and postmortem findings, when such could be made. Cases have been reported by others, in which no physical indications of a definite somatic disease during life, the necropsy showed deep-seated lobar pneumonia, in addition to the hyperemia, lymphatic engorgement and edema of the brain and meninges; so that such a possibility is not excluded in cases not followed by a careful necropsy, though it is decidedly exceptional.

SUPPORT THE BOARD OF EXAMINERS.

"These facts show why it is the doctor's duty to the state to support the medical examining boards, to work to have honest men appointed upon them, and not to be too censorious of their shortcomings. We, who have not served on these boards, know little of the worry, the work, and the weariness entailed by honest service in them. The man, who unreasonably or unjustly decries the system and its exponents, is doing an economic wrong similar to that of those few honorable but short-sighted doctors, who for years played into the hands of the profession's enemies by opposing state control of medical licensure. The manner, in which state laws compelled low-grade medical colleges to adopt entrance examinations, lengthen terms, and exact efficient final examinations, has fully justified the prophecies of the advocates of state control."—John B. Roberts, Philadelphia.

COMMUNICATIONS.

AN APPEAL TO THE GENERAL PRACTITIONER.

To the Editor of the STATE JOURNAL: Perhaps when you were a school-boy and less venerable in appearance than at this present date, you occasionally heard some of your companions spouting on "declamation day," the familiar lines: "Why is the forum cr-r-owded? What means this stir-r-r-in Rome?" If so, you may be interested in another "stir" now agitating the camp of the California opticians.

Some two years ago certain of the grinding folk got a bill through the Legislature establishing a board of examiners in "Optometry" (sic). When it came into the hands of our present governor, he, it is said, signed it reluctantly while remarking (he is, as you know, an oculist): "Gentlemen, the day will come when you will regret the passage of this bill."

I am in possession of reliable information and personal knowledge which proves that the governor has been a true prophet, and that the better class of opticians now bitterly regret the success (?) of those of their craft who engineered the bill.

The real animus of this bill is apparent: To give at least a *quasi* professional status to its originators in the eyes of a public as yet uneducated regarding what a *prescribing* optician does not know. The Board of "optometrists" (you will not find the name in any dictionary), began to grind; this time upon raw opaque material of unusually inferior quality, and so industriously, that the army of opticians is now crowded with raw, half-baked recruits legalized to prey upon the eyesight of the credulous and ignorant. *Hinc illæ lachrymæ*, issuing from the eyes of the "legalized." Our brethren of the Empire State have thwarted successfully, several efforts of the opticians there to achieve identically pernicious legislation through "The 'Optical' Society of the State of New York." In a recent open letter, Dr. Frank Van Fleet, Chairman of the Committee on Legislation of the Med. Society of New York, states that the Society opposed, during the legislative session of 1904, a petition originated by the above "Optical Society" for a law creating a state board of examiners in "optometry." He writes:

"At the time of the hearing on the optometry bill before the legislative committee of last year, the opticians presented a long list of names of physicians who had endorsed their efforts. * * * The undersigned communicated with every one named on the list, and learned that where reputable physicians had endorsed the measure it was through a misapprehension of the real purpose of the bill; and when its true character was pointed out to them, they not only withdrew their indorsements, but in many cases wrote vigorous letters in opposition to it. Many of the names were fictitious, the communications addressed to the addresses given being returned as not found. A large number were the names of irregular practitioners, such as osteopaths, spiritualists, etc. The arguments presented by the opticians are very misleading. Their claim, of course, is that they desire to protect the community from incompetent people, but the fact is (*as every well-informed physician must know*), [italics mine] they are all incompetent."—*New York and Phila. Med. Jour.*

I invite your especial attention to this closing sentence, for it is my personal experience that the prescribing optician gets his most powerful "boost" from the "well-informed" but alas! inconsistent physician who goes to the optician for his own glasses! This same "well-informed" doctor would scorn an oculist who went, when ill, straight to a druggist for *advice with medicine thrown in on the side.*

To do justice to the better class of opticians we may heed the saying: "Live and let live;" 'tis an old saw and a just one, so we should not lump the "optometrist" and like "ists" with the reputable and conscientious optician, who, when he finds he cannot bring his customer's vision to normal, generally tries to persuade him to consult an oculist.

But while there is a difference in these two specimens of amateur doctors, woe to those who have incipient tabes or albuminuria, etc., and who go first to either of these amateurs not knowing he has a serious disease of which the deficient vision is but a symptom.

Some glass given by the optometrist may improve vision and lull the victim until it is too late. I have seen this happen again and again, and so probably have you; only the optician did not refer the patient to any physician.

Doubtless there are indifferent, careless oculists in this broad land, as well as untold thousands of incompetent lens "fitters"; but the stand taken by the profession of the Empire State, and by myself, is higher and broader. It is the *general practitioner, the family doctor*, who has the high privilege of forming public opinion, since he has the opportunity to advise and instruct his patients that the oculist is, like himself, a physician, and to go to him rather than to the optician, just as he advises them to avoid patent and proprietary medicines and take what he prescribes through the dying art of prescription writing. But, if he sets a contrary example by having his own eyes "fitted" (and his pocket filched) by some traveling or stationary "optometrist" he has forfeited his right to complain of that other extra incubus—the prescribing druggist. I. O. PENNER, M. D.

INTELLIGENT EXAMINATION PAPERS!

As illustrative of the meager preparation of some recent graduates from a local medical college, the following (infra) answers are reproduced without alteration, from the public records of the State Board of Medical Examiners. The questions to which these answers were given, were:

Pathology.

1. Describe the characteristic scrapings obtained in cancer of the uterus.
2. Give the pathological classifications of goitres.
3. What valve is most commonly involved in endocarditis? What are the structural types of endocarditis and the common micro-organisms which produce these lesions?
4. State the most important sequel of diphtheria, and describe to what extent it may occur.
5. Describe the microscopic appearance of a true diphtheritic membrane.
6. After the use of what common drugs may the urine cause the reduction of Fehling's solution?
7. Describe a test for free hydrochloric acid in the stomach contents.
8. What vessels are most commonly involved in cerebral hemorrhage; in cerebral embolus?
9. Describe intussusception, and give its common seat.
10. Describe the microscopic structural changes in the kidney of parenchymatous nephritis and in the condition which frequently accompanies chronic suppuration.

The answers to the above questions from candidate "A" are as follows:

1. Structure of the tissues are in the form of broken down epethelial cells and connective tissue caused from the distructive groath of the cancer.
2.
3. The valve most commonly involved is the mitral valv, the structures are conjested roughened red & covered with lymph & deposit of vegitations upon the valve.
4. The most important sequel is weaking of the heart & heart muscles, or may cause paralysis & death if the patient is allowed to exert itself in anyway.
5.
6.
7.
8. The middle cerebral artery is hemorrhage of the brain. It depends upon the size of the embolus. a small one is apt to involv some of the small vessels leading off of the circle of Willis, a large embolus if it reaches the brain is apt to involv the Basaler artery or the communicating arteries.
9.
10.

Candidate "B" replied as follows to the same questions:

1. Blood—Mucous membrane and epothelial cells The walls of the blood vessels are made up of inter cellular substance.
2.
3. All of the valves are affeted more or less, princepally aortic.

With and with-out effusion. As a rule it is sequelly of paracarditis.

4. Paralysis—May occur in one limb or organ or all of them.
5. It is an excudation of fibrine and cells and when removed leaves a bleeding surface. Klubs Leffler baccilis.
6. Calomel.
7. Hanes.
8. The capillaries,—also effects the circle of Willis.
9. It is a condition of the bowels in which they are suseptiable to a disease. Solitary and Pyus glands.
10. There is an excudation of cells and that cuts off the blood supply. It is chaeterized by all the symptoms of inflemation. Cistytus.

COUNTY SOCIETIES.

Alameda County.

The regular monthly meeting of the Association was held on Monday evening, February 20, 1905, too late for this report to be published in the March number of the JOURNAL.

The retiring President, Dr. Jeremiah Maher, thanked the Association for the courtesies extended to him during his incumbency and in a short and characteristically pertinent address retired in favor of the newly elected President, Dr. Edward N. Ewer, who assumed the chair with a few well chosen remarks. President Ewer paid a well-deserved compliment to the administration of Dr. Maher, and bespoke for himself the same hearty support of the membership in his efforts to bring the Association to a high grade of scientific work as had been accorded the retiring President.

The program arranged for the evening consisted of a symposium on infant feeding, as follows: "Breast Feeding," Dr. Dudley Smith; "Home Modification of Cow's Milk," Dr. Chas. A. Dukes; "Proprietary Foods," Dr. Hubert N. Rowell. Dr. Smith believed that the science of infant feeding ought to hold a much more prominent place in medical science than has generally been accorded to it by the profession, in view of the fact that proper feeding during the first year or two of life is of primary importance in securing physical and mental perfection in later years. He regretted that faulty nutrition in infants was not commonly detected by the physician until the condition of the infant was so palpably bad as to alarm the parents, and attributed this to the fact that the simple expedient of accurately weighing the child each week is not insisted upon sufficiently; and it is all too common for substitute feeding to be prescribed without thought as to the possibility of correcting the errors in the mother's milk.

The management of normal breast feeding was outlined, conditions under which it should be discontinued were named, practical clinical methods and apparatus for the analysis of breast milk explained, and methods of treatment for the correction of the various forms of faulty lactation were given.

Dr. Dukes, in his paper, said that if percentage feeding is thoroughly studied, and each detail carefully carried out, not only as regards the percentage of

proteids, fats and sugar, but the quality of milk and class of cattle from which it is secured and the food upon which they are nourished, and the care with which the milk is secured, it will rarely if ever be necessary to resort to any other method of modified feeding. We must avoid changing the percentages too often and also remember that it is as necessary in infants as in adults to remove all food for a period of from twelve to twenty-four hours to correct acute attacts of indigestion.

The apparatus necessary for the home modification of cow's milk was described, due regard being given to the fact that it is necessary to keep the cost moderate, and a practical working method, with formula, was given in detail. The doctor maintained that if due care were exercised by the physician in explaining the details to the mother or nurse, no difficulty would be found in carrying out the successful feeding by this method, even in ignorant families. He expressed the hope, however, that we may have at an early date a laboratory for the modification of milk under scientific methods where we may have our prescriptions filled with as much ease and accuracy as our drug prescriptions are now compounded by our chemists.

Dr. Rowell was uuable to be present, so the subject of "Proprietary Foods" was not touched upon.

In the discussion following the papers much valuable information was brought out. Dr. Dudley Smith took occasion to exhibit a simple and efficient Pasteurizer of his own design to the Association.

Dr. M. Lewis Emerson read a paper writteu by J. Louis Lohse, of the class of 1906, Oakland College of Medicine and Surgery, entitled "Typhoid as Manifested by the Rabbit." Mr. Lohse recalled that the results of experiments on the lower animals with the bacillus of typhoid had as a rule been failures, and though certain pathogenic effects have been produced, still the disease could not be said to be typical typhoid fever. He detailed minutely the experimeuts carried out by himself in November, 1904, and closed with the following: "In conclusion it seems plausible to admit that typhoid fever in this case was actually produced in the rabbit; and iu corroboration of the statement I will recall to mind the terraced temperature curve, the positive widal reaction, the demonstration of the bacilli in the urine, blood and liver substance, the hyperemic and infiltrated meseuteric glands, and lastly, *the beginning necrosis in the Peyer's patch.*"

Kings County.

To the Officers and Members of the Kings County Medical Society: We, your Committee, appointed to draft a suitable memorial of respect to the memory of our late confrere, Dr. N. P. Duncan, respectfully submit the following:

"The mournful notes which betoken the departure of a spirit from its earthly tabernacle has again alarmed our outer door, and another has been taken to swell the numbers in that unknown land whither our fathers have gone before us."

Dr. Nathaniel P. Duncan after a life of loyal service in the practice of medicine has passed to rest. Dr. Duncan was born in Pittsburgh, Penn., in 1849, of Scotch descent. His father was a native of Louisiana: emigrated to Pittsburgh in 1820, there engaging in mercantile business. Dr. Duncan's mother was the daughter of Nathaniel Patterson, a surveyor and engineer who was prominently identified with the platting of the city of Pittsburgh.

Dr. Duncan received his education in the Beaver Academy of the Washington and Jefferson College, after which he began the study of medicine under the preceptorship of Dr. David Stanton of New Brighton, Penn., completing his medical education at the Bellevue Hospital Medical College, New York City, in 1871. He began the practice of his profession at Enon, Penn., where he remained until 1873, when he came to California. Owing to poor health he spent two years in traveling over the State, practiced a year in Fresno, and finally located in Lemoore in 1876, where he was married to Miss May Cranmer, a native of Calaveras County, California.

In 1886, Dr. Duncan moved from Lemoore to Hanford, purchased property and established his home. During almost the 30 years of medical practice in this section he has become well known to every inhabitant. His practice was extensive and successful, and by his liberal and sympathetic disposition he made himself popular with all classes. He was strongly attached to Hauford and Kings County, and was always in the front rank with those who used their best efforts in promoting the material welfare of the commuuity. He was one of the organizers of the Hauford National Bank, filling the position of President of that institution till his death. In the practice of medicine he was liberal and safely conversative, a consistent exponent of the higher ideals in medicine, and upon the organization of the Kings County Medical Society was elected its President, and filled the duties of that office until his demise. No night was too dark, no storm too severe for him to face when called even for a long trip to minister professionally to the sick, no matter what the prospect of remuneration to him might be, and he did so more iu the temper of a sympathizing friend, than as a mere professional man.

The many demands—business as well as professional—proved too severe a strain upon him and his health gradually began to fail. In the hope of recruiting lost energy, he laid aside the cares of life, and last fall visited his old home in Pennsylvania, as well as other eastern points, but without deriving any material benefit. His health still continued to fail, until finally he yielded to the inevitable decree of Fate, February 14, 1905.

While thoroughly unpretentious he had ability to discharge with credit the duties of any position he was called upon to fill; of modest and unassumiag bearing, he was in all the relations of life, loyal, intelligent and faithful; esteemed and trusted in business circles; zealous and devoted in his duties; genial and love inspiring in his friendships; how greatly, how sadly, we shall miss the welcome presence of his familiar face, and the hearty pressure of his hand.

A loving husband, a patriotic citizen, an honored member of the medical profession, has passed from our circle forever. Nothing is our own, we hold our pleasures just a little while and they are fled. One by one death robs us of our treasures, and leaves the living to mourn, while the worthy dead find eternal rest in the other and better world.

Peace to thy memory, O, well beloved Brother, the world was richer by thy life, and is poorer by thy death.

All of which is respectfully submitted.

L. E. FELTON,
R. W. MUSGRAVE,
J. A. MOORE,
Committee on Memorial.

We would recommeud that a copy of this Memorial be forwarded to the widow and mother of our deceased brother, a copy to the CALIFORNIA STATE JOURNAL OF MEDICINE, and that a copy also be inscribed on the records of this Society.

THE COMMITTEE.

Hanford, Calif., March 8, 1905.

Orange County.

The Orange County Medical Association met in regular session March 7th. There was a good attendance and considerable interest manifested in the paper and reports of cases.

Dr. Dobson reported three cases of amblyopia in three men who were smokers but who also drank regularly of claret wine. The doctor thought the cases resembled in some features poisoning by wood

alcohol, and as all three obtained this wine at the same winery it might possibly be due to something put in the wine by the manufacturer.

Dr. Wehrly read the paper of the evening, subject, "Radiotherapy and Radiography." Dr. Wehrly is enthusiastic regarding the treatment of lupus, epithelioma and keloid with the X-rays.

H. S. GORDON, Secretary.

Riverside County.

The March meeting of the Riverside County Medical Society was held Monday evening at the residence of Dr. C. S. Dickson. Thirteen members were present. The President, Dr. Roblee, occupied the chair. The Secretary reported that he had forwarded to our assemblyman and senator the resolutions adopted at the last meeting protesting against the passage of Assembly Bills 267 and 528; also that he had sent telegrams of the same purport.

The committee appointed at the last meeting to pass upon the application of Dr. H. M. Robertson, reported favorably and he was therefore elected to membership in the Society.

Communications from the Secretary of the State Society were read, and the Secretary of the local Society was directed to send a telegram to the Governor urging him to sign the Tuberculosis Sanitarium Bill.

Dr. Van Zwalenburg, on behalf of the committee, reported progress in the arrangements for the entertainment of the State Society, in April.

Dr. King of the State Board of Medical Examiners stated that, in the future, prosecutions for violations of the state medical law would have to be conducted by County Societies. He, therefore, moved that a committee of three be appointed, by the President, to formulate some method of procedure in such cases.

C. L. McFarland read a paper on the "Physician as a Witness." It was exceedingly interesting and very instructive, and elicited a free discussion of the many important points brought out in the paper.

The hostess, Mrs. Dickson, then extended to the Society an invitation to partake of the delicious refreshments which she had provided.

Dr. Jno. C. King then presented a very entertaining and suggestive paper on the "Physician as a Business Man." The subject was treated in an exceedingly original and instructive manner, and was listened to with great pleasure.

After a vote of thanks to the hostess for our entertainment, the Society adjourned until April.

SAMUEL OUTWATER, Secretary.

San Bernardino County.

San Bernardino County Medical Society met in the Y. M. C. A. Hall, pursuant to adjournment, President Dr. Browning in the chair. Dr. J. M. Hurley, Secretary of the Society, being absent, Dr. Wm. A. Taltavall was elected Secretary pro tem.

The name of Dr. E. A. McDonald of Redlands, Calif., was proposed for membership and was referred to the Board of Censors.

Dr. Browning explained the status of the medical bills now pending in the California State Legislature. Upon motion of Dr. Evans of Highlands it was ordered that a message be sent on behalf of this Society to Hon. F. C. Prescott, Speaker of the House of Legislature and member from this district, urging him to use his influence against the Antivaccination Bill and in favor of the bill to establish State Sanatoria for the treatment of tuberculous poor.

In the absence of Dr. W. H. Craig of Uplands, who was programmed to read a paper at this meeting, the President, Dr. Browning, called for reports of cases from members present. Dr. Shreck referred to the reported occurrence of cerebro-spinal meningitis in Redlands and asked for information as to the real nature of these cases. Dr. Sanborn reported that he had had secondary cases, mostly tubercular, such as are liable to occur at any time; but he had seen nothing of an epidemic nature. Dr. Tyler reported two recent cases of meningitis; one in the infant child of a tuberculous father, the other in a boy of fifteen years, ill with typhoid fever, who died at the end of the third week.

Dr. Tyler reported two cases of fracture of the skull that had been under his care recently; one case being that of a man who had fallen off his bicycle striking on the left side of his face and head which resulted in extensive injuries to the bones and of the soft parts with hemorrhage from the nose, loss of sensation on the opposite side, etc. Notwithstanding such injuries, the man made a good recovery. The other case was that of a man thrown out of a carriage and striking on his head. At first there were no definite symptoms of any serious nature, the man being able to walk and talk. At the end of the third day thereafter paralysis developed, first in the face, then in the arm, and then in the leg; followed by coma which was succeeded by death. At the autopsy there was no evidence of injury externally, but inside the skull large clots were found covering both hemispheres. The middle meningeal arteries were ruptured, there being an extensive fracture of the base. Dr. Tyler contrasted the apparent gravity of the first case and the good recovery of the patient, with the seemingly trivial injury at first appearance and serious developments and fatal results in the second case.

Dr. Ide reported three cases of fracture of the skull which he had seen in Milwaukee, Wis., in which spiculae of bone had penetrated the orbit, causing serious lesion. Two of these patients had been treated by tying the internal carotid, which treatment resulted in causing an aneurism; also led to paralysis by cutting off the supply of blood to that side of the brain. In the other case there was no operation and the patient's eye was lost. Dr. Tyler reported a case of retained secundines which came under his care, which he treated by curetting six weeks after the supposed abortion had taken place. He stated that in his opinion the safest course to pursue was to clear the uterine cavity at once in all cases of abortion by curetting. Dr. Sanborn related a case in which placental tissue had been retained seven months and which on examination by a microscopist had been pronounced colloid cancer; this patient recovered. Dr. Sanborn said that he had since seen an article in a medical journal in which the resemblance of certain placental cells to cancer cells were pointed out. Dr. Browning spoke of the danger of the curett and instanced a case in which its use had proved fatal.

A motion of Dr. Tyler, was seconded by Dr. Bennette, that when the Society adjourns it be to meet in the Y. M. C. A. Hall in Redlands, on Wednesday, the 12th of April, at two o'clock P. M.

Bills submitted by the Secretary being allowed, adjourned as per above motion.

J. M. HURLEY, Secretary.

Santa Cruz County.

The Santa Cruz County Medical Society held its last meeting at the St. George Hotel, Santa Cruz. Drs. Clark, Sundberg, Congdon, Green, Watters, Hedgpeth, Phillips and Pope were present. Dr. Phillips in the chair.

The resignation of Dr. Knight was accepted. The Secretary was ordered to express the regrets of the Society to Dr. Knight and to inform him that he had been made an honorary member.

The Secretary was also instructed to telegraph to the Santa Cruz County assemblyman, George C. Cleaveland, that the Society greatly desired the defeat of Assembly Bill 267.

Dr. A. C. Posey was given a transfer to the Santa Clara County Society. His new address is Louise Building, San Jose.

Dr. H. H. Clark read an able paper on "Fractures at the Elbow Joint." Dr. P. K. Watters read upon the subject "When to Operate." Interesting discussion followed. SAXTON POPE, Secretary.

San Francisco County.

The regular meeting for the month of March was held in the parlors of the Y. M. C. A. on the 14th, the meeting being called to order by the President, Dr. Emmet Rixford. Dr. Herbert C. Moffitt read a paper on "Clinical Observations in Nerve Syphilis," which was discussed by Drs. Montgomery, Power, and others. Dr. Wm. Fitch Cheney read a paper on "Tubercular Meningitis with Report of Three Cases," which was generally discussed. The following physicians were elected to membership: Drs. W. B. Ffoulkes, Jacob Schwarz, E. K. Hopkins, Louis Gross, J. W. Stowell, George E. Davis, James E. McCue, Shingo Hashimoto, and F. M. Gedney. The Secretary of the State Society reported that as the membership of the County Society now exceeded 512 members, it was entitled to another delegate to the State Society, and on motion, Dr. M. W. Fredrick was elected such delegate.

San Joaquin County.

The regular monthly meeting was held February 24th at the residence of Dr. C. R. Harry, President R. B. Knight in the chair.

The following members were present: Drs. W. E. Gibbons, R. R. Hammond, S. W. R. Langdon, A. W. Hoisholt, E. A. Arthur, J. D. Young, W. J. Young, S. B. Davis, W. W. Fitzgerald, D. F. Ray, J. J. Tully, S. W. Hopkins, Lodi, Minerva Goodman, R. B. Knight, Margaret Smyth, C. R. Harry and Barton J. Powell.

Dr. C. R. Harry read a paper on "Obstetric Methods in Dublin and Dresden."

The discussion was opened by Drs. W. J. Young, S. W. R. Langdon and W. E. Gibbons.

After refreshments the Society adjourned to meet at the residence of Dr. S. W. R. Langdon in March.

BARTON J. POWELL, Secretary.

Sonoma County.

The Sonoma County Medical Society met in the office of the Secretary with a good attendance. Drs. Swisher, Browne, Seawell and Wheeler came from Healdsburg in Dr. Swisher's automobile. Dr. Ivancovich and Dr. Duncan from Petaluma and Dr. Gray Eldridge.

The amendment to by-laws was passed fixing our annual dues at $5. A resolution of respect to our late brother, Dr. Ward, was passed and ordered placed upon the minutes, and the bereaved family furnished copy of the same.

We received applications for membership from Dr. R. G. Reynolds, Upper Lake; Dr. A. R. Graham, Petaluma.

The thanks of the Society was tendered our energetic Committee on Public Health and Legislation. Their prompt action in informing our representatives at Sacramento of our deep interest in the proposed changes in our State medical law, which to us is quite efficient and much more satisfactory than the proposed changes. Dr. R. M. Crump is Chairman of the committee and Dr. W. J. Kerr and Dr. Smith McMullen are members. It was reported that two physicians were doing lodge work. No action was taken.

Dr. S. Bogle, County Physician, read his paper on "Vaccination." The paper is an excellent one.

He gave a history of vaccination from its beginning by the great Jenner; cited the benefits to humanity that now the smallpox was not so dreaded as it was when it depopulated villages and towns in Europe, and even in our own country. He gave his technique in vaccination—a history of the scar, etc.; that it was not necessary to have bad sores, which are caused by soiled linen, etc.

Dr. R. M. Bonar followed with a detailed account of army vaccination.

We adjourned at 12 M. with one of our most successful meetings. The following is the program for our next meeting, to be held March 9th, at the Secretary's office, Santa Rosa:

Paper—"Hernia-Inguinal". Diagnosis and Treatment. M. M. Shearer, M. D., Santa Rosa.

Discussion on Paper. R. Urban, M. D., Petaluma; J. W. Seawell, M. D., Healdsburg; J. H. McLeod, M. D., Santa Rosa.

General discussion limited to five minutes.

Be on hand, doctorum. We all need your mite.

* * * * *

The Sonoma County Medical Society met in the Secretary's office, March 9th. Dr. George Ivancovich presided Owing to the illness of Dr. Shearer the paper of the evening had to be omitted.

Dr. Jesse gave a description of a case of purpura hemorrhagica of 4 days' standing, which resulted fatally. He also described his treatment.

At the next meeting, April 13th, there will be a paper, "A Plea for Care of the Child-bearing Woman," by Dr. A. McG. Stuart. Discussion by Drs. A. Anderson, J. J. Keating and H. S. Delamere. Also a paper by Dr. R. A. Forrest, "Sprain Fractures at the External Malleolus." G. W. MALLORY, Secretary.

Ventura County.

At the last meeting of the Ventura County Medical Society, held December 19, 1904, at the residence of Dr. John Love, the following officers were elected to serve during 1905: Dr. William R. Livingston, President; Dr. Thos. E. Cunnane, Vice-President; Dr. Chas. Teubner, Secretary and Treasurer. The Board of Censors consists of the following: Drs. D. Dwire, J. Love, A. A. Maulhardt, G. N. Stockwell, D. W. Mott, G. A. Broughton J. H. Lowry and E. A. Vogt.

Dr. Livingston read a paper on "Appendicitis," giving the subject a most complete and modern elucidation.

All the members joined in the subsequent discussion, in which it developed that all had had considerable practical experience with the disease, and were thus able to thoroughly appreciate the very able paper of Dr. Livingston.

CHARLES TEUBNER, Secretary.

MEDICAL SOCIETIES.

Redlands Medical Society.

The annual meeting of the Redlands Medical Society was held on January 18, 1905, when the following officers were elected for the ensuing year: President, Dr. C. A. Sanborn; Vice-President, Dr. C. E. Ide; Secretary and Treasurer, Dr. W. A. Taltavall. The reports of the Secretary and Treasurer for the year just closed showed the Society to be in a flourishing condition. Dr. J. L. Avey read an interesting paper on "Hysteria," which was discussed by Drs. Ide, Strong, Shreck, Tyler, Alden and Browning.

At the regular monthly meeting held on February 15th, Dr. C. E. Ide spoke on "Prognosis in Heart Lesions." In the discussion which ensued Dr. Sanborn spoke of the differences of opinion as to insurance risks in heart lesions. He instanced the case of a prominent citizen who had been rejected by a company on account of the presence of an aortic regurgitant murmur. This indeed was present, but after a while it disappeared and at two subsequent examinations no murmur could be heard. The gentleman was then sent to the chief examiner of the company and to other physicians, and while there was a difference of opinion as to the exact condition, the presence of regurgitation was excluded, and the risk was afterward accepted. In reply to a question, Dr. Sanborn said that the premium was not increased in this case

WM. A. TALTAVALL, Secretary.

San Joaquin Valley Medical Society.

The meeting was called to order about 2 P. M. by the President, Dr. Lilley of Merced, and after his address proceeded with the regular order of business. There were present Drs. Loper, Manson, W. T. Maupin, Russell, Trowbridge, Sherman, Dunn and J. R. Walker and J. D. Davidson of Fresno, Bering of Tulare, Harry of Stockton, Surrhyne and Evans of Modesto, Hennemuth of Waterford, A. W. Morton of San Francisco, Lilley, O'Brien, Smith, Whitlock and Wolfson of Merced, and Byars of Madera.

Dr. Castle of Merced was elected to membership.

The first paper, "The Surgical Treatment of Tuberculosis of the Omentum and Mesentery," was not presented as the writer, Dr. Dameron, was not present, but Dr. Evans was called upon to discuss the subject anyhow. There was quite a lively discussion on the subject.

Next Dr. Harry of Stockton presented a paper on "Obstetric Methods in Dublin and Dresden," which was very interesting and brought forth a lively discussion of the subject.

Dr. Purdon of Galt sent his paper, he being unable to attend, the subject being "The Language of the Neurons." With it were a number of photos of pulse tracings which he had prepared.

Dr. McClelland of Los Banos sent a splendid paper the subject of which was: "Old Fashioned Remedies," in which he urged the profession to be better students of the Materia Medica, and to formulate their own prescriptions rather than to use so many ready made and proprietary mixtures, said to contain this or that and to cure a number of different diseases. It was greatly enjoyed by all, and freely discussed.

Dr. Russell's paper, "The Adrenal System," was of a scientific nature and well written and showed the author's study of the subject.

Resolutions, as follows, on the death of Dr. N. P. Duncan of Hanford, a former member, were adopted:

Since our last meeting our membership has been depleted by the loss of our esteemed co-worker, Dr. N. P. Duncan of Hanford.

Resolved, That by the death of our brother the San Joaquin Valley Medical Society has lost a valued, and zealous member, one ever ready to lend his best endeavors for the interest of this Society and the profession at large.

He was ever faithful to the duties entrusted to him, and was always ready to aid his professional brother to the extent of his ability. The community in which he lived and worked has also lost a faithful friend, who freely gave his time and service for their relief, and was ever ready and willing to answer a call and administer to their wants. Be it further

Resolved, That a copy of these resolutions be spread on the minutes of this Society, published in the California State Medical Journal, a copy sent to his family, and a copy published in one of the Hanford papers. Be it further

Resolved, That this Society extend its sympathy to the bereaved family.

R. E. BERING,
D. H. TROWBRIDGE,
W. T. MAUPIN,
Committee on Resolutions.

The Society elected the following officers for the next term: President, Dr. R. E. Bering, Tulare; 1st Vice-President, Dr. P. Manson, Fresno; 2nd Vice-President, Dr. A. M. Smith, Merced; 3rd Vice-President, Dr. C. W. Kellogg, Bakersfield; Secretary, Dr. J. R. Walker, Fresno; Assistant Secretary, Dr. D. H. Trowbridge, Fresno; Treasurer, Dr. T. M. Hayden, Fresno.

The Society then adjourned to the Harvey House where they enjoyed a splendid banquet given by the Merced County Medical Society.

The next meeting will be held at Fresno on the 2nd Tuesday in October.

J. R. WALKER, Secretary.

ALCOHOLICS.*

By CHARLES ANDERSON, M. D., Santa Barbara.

The discussion of the use of alcohol in medicine is so complicated by the contention of the warring elements, vested interests on one side and the religio-politico-ethical opinions on the other, that is it almost a dangerous proceeding to attack the question; for one side or the other is almost sure to raise the cry of interest, or the charge that the party has been influenced by unworthy motives. Unfortunately, the same state of affairs seems to have arisen within the medical profession as exists without, if the discussions in some of the journals are to be taken as an index. The organization of medical temperance societies shows that at least one side has taken a decided stand on a subject, that, scientifically is still *sub judice*.

What we want in the consideration of this subject are facts, scientifically determined facts, not arguments. The latter, most unfortunately, are what we have most of, on both sides of the question; while demonstrated facts such as scientific medicine of today demands, are sadly wanting. The sifting of the facts for or against the use of alcoholics as therapeutic agents, is not by any means an easy matter. The scientifically demonstrated items of fact so far separated from the mass of arguments and careless observations by untrained observers on the one hand, and on the other the scientifically obtained truths gained by trained observers, who in many instances have had no clinical experience by which to try out their observations, are not sufficient to base any definite conclusions upon.

It is now over thirty years since Bartholow[1] began his study of alcoholics as therapeutic agents in a scientific way. When he announced that alcohol actually reduced animal heat, I well remember how the "old practitioners" said, with ill-concealed contempt, that anyone could prove that it was not true by simply taking a good sized dram of whiskey any cold day. Bartholow took the temperature of a number of animals and birds, and then gave them alcohol and again took their temperature at short intervals and demonstrated that there was a slight rise of temperature at first, but later there was a steady and decided fall in temperature; he demonstrated the same thing in man. The study of blood pressure was unsatisfactory, by reason of lack of a reliable instrument, none being obtainable at that time. Anstie[2] had made a number of experiments, and, while at that time they were considered as satisfactory and complete, now they are out of date and too crude for our times, although they are still referred to by some writers.

Headland[3] is even more antiquated, though he, too, is still quoted, but there is nothing in either of these authorities that is of any value today to anyone looking for such facts as we want now.

Stille[4], in summing up the subject of the action of alcohol, says: "Experiments and observations made to determine the mode of action of alcohol on the economy have too generally referred to excessive doses rather than to such as are employed in dietetics and medicine. Hence, a dispute has arisen, whether alcohol raises or depresses animal temperature, when it is of daily experience that moderate doses augment the heat and excessive doses diminish it." He gives no experimental tests or figures to substantiate his statements. He quotes Moleschott's saying that "Alcohol is the savings bank of tissues. He who eats little and drinks alcohol in moderation retains as much in his blood and tissues, as he who eats more and drinks no alcohol." The quotation shows that Stille was a believer in the use of alcohol in moderation.

Spitzka[5], in discussing alcoholic insanity, does not by any means make it clear that the patient is insane because he is a drunkard, or a drunkard because

*Read before the Santa Barbara County Medical Society, January, 1905.

he is of unsound mind, although he leaves you to infer the former as the fact.

Since the days of Batholow's first studies, the controversy has waged high and low, both in Europe and this country. What have purported to be clinical observations and laboratory demonstrations, have been brought out by both sides, showing what the partisans wished to know, and immediately the other side charges what may or may not be known, viz., that the results as published show only part of what was demonstrated, and not all the facts. The controversy has been particularly torrid in England. The anti-alcoholics, being led by Richardson, the arguments have been many and strong, but the demonstrations seem to have been few. Of course, it is easy to understand that a temperance advocate, who wanted to prove beyond peradventure that alcohol is a poison, could easily use a spirit containing methilic alcohol, CH HO instead of amylic alcohol CH, aud thereby get results beside which the trusted "terrible example" would be the merest child's play.

To such an extent has this controversy been carried, that nothing short of an examination of the subject by a government commission or a detail of medical officers from one or all of the departments maintaining medical officers; such a commission or detail of medical officers to be hedged about by extraordinary precautions so as to prevent influence by either side, or even the appearance of a justification of a charge of bias either way.

This commission or detail should have authority to make a full and complete examination of all phases of the subject. Aside from the ordinary physiological examination of the matter which should be carried on in the ordinary way, I would suggest that a physiologico-clinical study of various diseases be made for the benefit of practical medicine, as well as the more scientific examination of the subjects. That is, it should be the object to study the effect of alcohol on the process and progress of disease, if it has any. A given number of animals, subject to a disease common to man, to be inoculated with that disease, half this number to be given daily, a stated amount of alcohol (per weight of animal), then after a given time, dependent on the incubatory period of the disease being studied, the animals to be killed in pairs, one of the animals that has been given alcohol and one of the control animals, at such intervals as may be required, and the comparative pathological results, both gross and microscopical, to be noted and recorded in each case throughout the series. This should be carried out *in extenso* with every scientifically demonstrated disease, the series to be carried out and repeated as may be necessary to give an undoubted result, whatever it may be.

To remove the commission as far as possible from the storm-center of controversy, it might be well to have it sit in Manila and use one of the abandoned military hospitals.

In making a suggestion for physiologico-chemical study of diseases subjected to alcoholic dosage, I have no idea that it would be met with the approval of either side in the controversy, but I believe it would be a great benefit to the medical profession and the world in general.

REFERENCES

1. Lectures before class in Medical College of Ohio, 1872-74. R Bartholow.
2. Stimulants and Narcotics, Francis E. Anstie, Philadelphia, 1865.
3. Action of Medicine, Frederick William Headland. Philadelphia, 1855.
4. National Dispensatory, Alfred Stille, Philadelphia.
5. Manual of Insanity, E. C. Spitzka, New York, 1895.
6. Richard C. Cabot, Alcohol Studies, Boston, 1903.

A poor woman from the country once brought me three chickens nicely dressed, in payment for services, and it was learned later that she had stolen the chickens. Ergo: Patients are willing to steal in order to pay doctor's bills.—*Am. Medicine.*

PUBLICATIONS.

First Annual Report of the Henry Phipps Institute. Philadelphia.

The Henry Phipps Institute of Philadelphia founded in 1903 for the study, treatment and prevention of tuberculosis, has issued its First Annual Report, a volumn containing 265 pages. The work of the first year is described in detail and bears evidence of the energy of Dr. Flick and his assistants, for clinical work was begun the day after the Institute was founded. A four-story building was secured and while the upper stories were being fitted up for wards, the dispensary work was developing. During the first year 2039 patients were treated, 254 of them being hospital patients. The dispensary department is thus seen to be a very important one, and its work is similar to that done by like organizations in New York, Boston, and Scranton, Pa., where, in addition to the necessary medical treatment, the patients are taught and drilled in preventive measures. They are not only taught how to care for their sputum, but the necessary material with which to care for it is provided for them. At regular intervals they are visited in their homes by nurses and given practical instruction in hygienic living. Too much cannot be said in commendation of this dispensary plan, and it is not to the credit of medical men and humanitarians elsewhere, that it is not found in every large city. What an opportunity exists in San Francisco, where the death rate from tuberculosis reaches 32 per 10,000 of population, for the legitimate use of some of our misdirected, but well meaning philanthropy!

The medical staff consists of 16 men; and there are 10 nurses, the latter composed of girls who were cured of tuberculosis at the White Haven Sanatorium, and thus the Institute is preparing women to nurse tuberculous subjects while providing an occupation for cured consumptives.

A laboratory, pathological museum, and autopsy room have been equipped, and the Autopsy Report forms a very important part of the work now being reviewed.

No special line of treatment is instituted, reliance being placed on food, nursing and hygienic living.

Of the results, time has not sufficiently elapsed to speak with any degree of accuracy, and besides in a dispensary practice it is impossible to compile correct results. Of the hospital patients, however, more than 28% are reported improved, 43% unimproved, 24% terminated in death, and in 4% the results are not recorded. These figures must not be compared with those of tuberculosis sanatoria, however, for it must be remembered patients in all stages of the disease are admitted here, and the majority of them came from the poorest district of Philadelphia and constituted a class whose resistance would naturally be a poor asset in the struggle.

An international lecture course, instituted for the education of the public, and given by men of prominence, constitutes an important feature of the work of the Institute. Drs. E. L. Trudeau, Wm. Osler, G. Sims Woodhead, Herman M. Biggs, and Edoardo Maragliano have already contributed to this course, and their lectures, previously published elsewhere, form part of this Report.

If space permitted much could be said regarding the very complete neurological report by Dr. McCarthy, in charge of that department, the section on tuberculous neuritis, 6 cases of which were thoroughly studied, being of particular interest. The author is in doubt whether the neuritis is due to tuberculous toxins, or to those from mixed infections. The ulnar reflex which he found present in practically all cases of advanced disease, and many cases of early tuberculosis, may prove of value in the recognition of incipient cases; at any rate, it will have its place in the symptom-complex. A report on a case of fibroid phthisis, and a statistical study of tuberculosis in Philadelphia complete this very interesting Report.

The prosecution of this work is rendered possible through the munificence of Mr. Henry Phipps, who founded and maintains it. G. H. E.

Eye, Ear, Nose and Throat Nursing.—By A. Edw. Davis, Prof. of Eye Diseases in the New York Postgraduate Med. School and Hospital, and Beaman Douglas, Prof. of Nose and Throat Diseases in the same Institution. Published by F. A. Davis Co., Philadelphia, 1905. Price $1.25.

This little work has come to fill a much-needed want. No one can realize the importance of this subject so well as the specialist who, besides being compelled to treat his patients in general hospitals, has often to instruct the nurse, otherwise well trained, in this special branch of nursing. It is a very thorough work of its kind, replete with illustrations and practical suggestions. The chapters on the eye have been written by Dr. Davis and those on the ear, nose and throat by Dr. Douglas. The book contains sufficient of anatomy, physiology and pathology to enable the nurse to work intelligably upon these organs. Antisepsis, asepsis and operating room methods have received particular attention, also the preparation of solutions and dressings. Much space has been devoted to the care of special cases such as specific conjunctivitis, diphtheria, cataract, mastoiditis, empyemia of the sinuses, laryngeal tuberculosis, etc. The authors are men of note and vast clinical experience and anything coming from their hands cannot but be accepted with serious consideration. L. C. D.

The Medical Examination for Life Insurance and Its Associated Clinical Methods.—By Charles L. Greene, M. D., St. Paul. Second edition, revised and enlarged, with 99 illustrations. Philadelphia, P. Blakiston's Sons & Co., 1905. Price $4.00.

This well-known work hardly needs an extended review. The present edition contains some additional matter of interest and value and is to that degree better than the first edition. The book is known favorably to every physician who does much life insurance work, and, indeed, is to be found in the library of nearly all such. It is very well gotten out and the marginal captions add greatly to the convenience and ease of ready reference. It will undoubtedly receive a cordial welcome by the class of physicians to which it appeals.

Publications of the University of California. Department of Physiology. Volume 2, parts as follows:

The Action on the Intestine of Solutions Containing Two Salts.—By John Bruce MacCullum.

The Action of Purgatives in a Crustacean (Sida crystallina).—By John Bruce MacCullum.

On the Validity of Pflüger's Law for the Galvanotropic Reactions of Paramecium.—By Frank W. Bancroft.

On the Fertilization, Artificial Parthenogenesis, and Cytolysis of the Sea Urchin Egg.—By Jacques Loeb.

On an Improved Method of Artificial Parthenogenesis.—By Jacques Loeb.

Seventh Annual Report of the Managers of the New Jersey State Village for Epileptics; year ending Oct. 31, 1904.

The Foundations and the Aims of Modern Pediatrics. By Theodore von Escherich, Vienna, Austria.

The History of Pediatrics and Its Relation to Other Sciences and Arts.—By A. Jacobi.

Transactions of the Rhode Island Medical Society, Vol. VII, Part 1.

Diagnosis of Cholecystitis and Cholelithiasis.—By Parker Syms.

The Mental States Associated with Chorea.—By A. W. Hoisholt.

Report of the Trustees of the Newberry Library for the year 1904.

Prostatic Obstruction to Urination.—By Parker Syms.

Remarks on Appendicitis.—By Parker Syms.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Abbott, G. K., from Burbank to Glendale Sanitarium, Glendale. Hrs. 10 A. M. to 12 M. **Ainsworth, F. K.,** from Wells Fargo Bldg. to Southern Pacific Co., Merchants' Exchange, San Francisco.

Beattie, Wm. G., from 2838 Folsom st., San Francisco, to Novato, Marin Co. Hrs. 2-4 and 6:30-7:30 P. M. **Breitstein, Louis A.,** from 1610 Geary st., San Francisco, to Goldfields, Nevada. **Bucknall, Geo. J.,** from 372 Sutter st. to 374 Sutter st., San Francisco.

Cochran, Guy, from 510 Trust Bldg. to Pacific Electric Bldg., Los Angeles. **Cosgrave, Millicent M. A.,** from 813 Sutter st. to 803 Sutter st., San Francisco. Crees, Robert, from Byron Hot Springs, Contra Costa Co., to Santa Maria, Santa Barbara Co.

Doherty, S. McL., from Fortuna, Humboldt Co., to Napa, Napa Co.

Eastland, Orin, from 77 3rd st. to 1274 12th ave., San Francisco.

French, Chas. E., from 546 Sutter st. to 391 Sutter st., San Francisco. **Friedlander, David,** from 751 Sutter st. to Central Bldg., 391 Sutter st., San Francisco.

Garcelon, Harris, from add. unknown to 229 North Grand ave., Los Angeles. **Goodfellow, Geo. E.,** from 771 Sutter st. to 751 Sutter st., San Francisco. Gladding, Chas. F., from West Berkeley, Alameda Co., to Represa, Sacramento Co.

Howard, Wm. Berry, from 132 Church st. to 323 City Hall, San Francisco. Hrs. 3-5 P. M. Hund, Otto H., from 1716 Howard st. to 716 Howard st., San Francisco. Hunter, Hugh A., from Fort Bidwell, Modoc Co., to Reston, Manitoba, Canada. Hymen. Sol., from 1916 California st. to Mt. Sinai Hospital, 5th ave. and 100th st., New York City.

Jackson, Wm. J., from Nome, Alaska, to 44 3rd st., San Francisco. Hrs. 2-4 and 7:30 P. M.

Kavanagh, Jos. J., from add. unknown to Vallejo, Solano Co. **Ketcham, Leander Y.,** from San Diego to Ensenada, Mexico.

Malaby, Z. T., from Pasadena to Hellman Bldg., Los Angeles. Hrs. 11 A. M. to 1 P. M. McCarthy, Ellen F., from San Mateo to Union Trust Bldg., Cinn., Ohio. **McCue, Jas. E.,** from Veteran's Home, Napa, to 21 Powell st., San Francisco. **McElroy, B. F.,** from 135 Mason st. to Parrott Bldg., San Francisco. Hrs. 2-4 P. M.

Newbold, R. L., from add. unknown to Colusa, Colusa Co.

Orella, F. R., from 406 Sutter st., to James Flood Bldg., San Francisco.

Phipps, Charles, from 827 Haight st. to 1216 Jones st., San Francisco. Hrs. 7-8 P. M. Pinninger, S. E., from Floriston, Nevada Co., to Lovelock, Humboldt Co., Nevada. **Porter, R. L.,** from 813 Sutter st. to 803 Sutter st., San Francisco. Hrs. 3-5 P. M. **Posey, A. C.,** from Watsonville, Santa Cruz Co., to Louise Bldg., San Jose, Santa Clara Co. Pratt, Geo. D., from Wilson Blk., Los Angeles, to 723½ State st., Santa Barbara. Hrs. 9 A. M. to 12 M. and 1-5 P. M.

Read, J. M., from 415 Van Ness ave. to 369 Sutter st., San Francisco. Rogers, L. S., from Tehachapi, Kern Co., to San Pedro, Los Angeles Co. P. O. box 2166.

Smith, Thos. K., from 511 9th st. to 517 National ave., San Diego.

Thompson, C. V., from add. unknown to Eureka, Humboldt Co. **Thompson, L. L.,** from Colfax, Placer Co., to Gridley, Butte Co. Trask, H. C., from 349 Geary st. to Cloverdale, Sonoma Co.

Wright, A. H., from 590 Sutter st. to 1334 McAllister st., San Francisco.

Yerxa, Chas. W., from Sisters' Hospital to 614 Pacific Electric Bldg., Los Angeles. Hrs. 12:30-5 P. M.

New Names.

Carleton, Chas. H., 43-44 Mercantile Place, Los Angeles. Med. Dept. Univ. City of New York,'86. (C) '96.

Dodsworth, R. M., Long Beach. Coll. of Physicians and Surgeons, San Francisco, '00. (C) '00.

Ffoulkes, Bruce, James Flood Bldg., San Francisco. Cooper Med. Coll., '94. (C) '94. Hrs. 11 A. M. to 1 P. M.

Hogue, Gustavus, Fort McDowell, S. F. North Western Med. Univ., Ill., '99. (C) '04. Hunt, D. Winslow, Glendale, Los Angeles Co. Michigan University, '71. (C) '87.

Kankel, O. W., Upland, San Bernardino. University of Minn., '00. (C) '04.

Peoples, Stuart Z., Petaluma, Sonoma Co. Med. Dept. Univ. of California, '04. (C) '04.

Schwarz, Jacob, Mt. Zion Hospital, San Francisco. Med. Dept. Univ. of Calif., '04. (C) '04.

Swift, E. LH., Hellman Bldg., Los Angeles. Med. Coll. Physicians and Surgeons, New York, '84. (C) '04. Hrs. 10 A. M. and 12:30 P. M.

New Members.

Avey, John L., San Bernardino Co. Med. Soc.

Bauter, Lucian A., Shasta Co. Med. Soc.

Carter, P. B., Santa Barbara Co. Med. Soc. Cooper, Chas. N., Santa Clara Co. Med. Soc.

Davis, Geo. E., San Francisco Co. Med. Soc.

Edgecomb, Thomas J., Shasta Co. Med. Soc.

Ffoulkes, Bruce, San Francisco Co. Med. Soc. Foster, S. B., Humboldt Co. Med. Soc.

Gedney, F. M., San Francisco Co. Med. Soc. Gould, F. S., Santa Barbara Co. Med. Soc. Gross, Louis, San Francisco Co. Med. Soc.

Hogue, Gustavus, San Francisco Co. Med. Soc.

Lund, Chas. W., Yuba and Sutter Co. Med. Soc.

Marvin, Geo. D., Santa Clara Co. Med. Soc. McCue, Jas. E., San Francisco Co. Med. Soc. Menefee, P. M., Humboldt Co. Med. Soc.

Ottmer, F. H., Humboldt Co. Med. Soc.

Peoples, Stuart Z., San Joaquin Co. Med. Soc. Pierce, Robert E., Santa Clara Co. Med. Soc.

Rosson, Charles T., Kings Co. Med. Soc.

Schwarz, Jacob. San Francisco Co. Med. Soc. Smith, Albert St. J., Santa Clara Co. Med. Soc. Stowell, John M., San Francisco Co. Med. Soc. Swift, E. LH., Los Angeles Co. Med. Soc.

Thompson, C. V., Humboldt Co. Med. Soc.

Deaths.

Duncan, N. P., Hanford, Kings Co.

Miller, J. A., Oakland, Alameda Co.

Truitt, Samuel W., San Francisco.

Wright, Bushnell A., Los Angeles.

Fourth Session of the California Public Health Association, April 17th, New Glenwood Hotel, Riverside.

Officers, 1904-5: President, Dr. LeMoyne Wills; Vice-President, Dr. Thomas Ross; Secretary-Treasurer, Dr. N. K. Foster. Executive Committee: Dr. Edward von Adelung, Chairman; Dr. N. K. Foster, Dr. William Simpson, Dr. D. F. Ragan.

PROGRAM.

10:00 A. M.—"Report on Legislation." A digest of the important health bills passed by the recent legislature.

10:30—"Disinfection"—By Dr. Rupert Blue, Director of the Marine Hospital Laboratory at San Francisco.

11:30—Miscellaneous Questions by Members, with replies and discussion.

1:30 P. M.—"Typhoid Quarantine"—By Dr. Hutchinson of Oregon.

2:15 P. M.—"Flies as Carriers of Contagion"—By Dr. J. O. Cobb, Marine Hospital Officer of Los Angeles.

3:00—"State Control of Tuberculosis"—By Dr. C. C. Browning of Highland.

3:45—"Septic Tank Disposal of Sewage"—Dr. Mason.

4:30—Miscellaneous questions and answers, and general discussion on any desired subjects.

UNCINARIASIS, WITH REPORT OF SEVEN CASES.*

By HERBERT GUNN, M. D., San Francisco.

UNCINARIASIS or ankylostomiasis, known as hook-worm disease, Egyptian chlorosis, brickburners' anemia, miners' anemia, tunnel disease, etc., until recently believed to be endemic only in tropical countries, is now known to be widely distributed throughout Germany, France, northern Italy, southern United States, South America, etc. In some countries it is quite prevalent, as in Porto Rico, where more than 50% of the inhabitants are affected. (Ashford.) In the southern United States, Georgia, Florida, and Texas, it is quite common, as shown by Stiles, Smith and others.

The cause of the disease is a small round worm, 6 to 15 m. m. in length, inhabiting the small intestine, principally the jejunum. Two varieties are recognized in the human being, the European, or uncinaria duodenalis, and the American, or uncinaria Americana, the latter described by Stiles. The worm produces a great many eggs which do not develop to embryonic form while in the host, but do so shortly after leaving the intestinal tract, if deposited in a suitable medium, as water or moist earth. Thus it is seen that there can be no multiplication of the parasites in the intestine.

Infection occurs through the food, drink, etc., and as shown by Loos, directly through the skin, the embryos penetrating the deeper tissues through the hair follicles, thus gaining access to the veins, and finally reaching the intestinal tract. Bently has shown that a skin disease, called in the South "ground itch," is frequently followed by uncinariasis. After infection occurs, and the embryo reaches the intestinal tract, it develops to maturity in a few weeks. The worm attaches itself by its powerful buccia armature to the intestinal wall and sucks blood, occasionally shifting its position, leaving behind a small wound which continues to ooze for some time. Loeb and Smith have recently demonstrated a substance occurring in the anterior portion of the canine ankylostoma which retards blood coagulation.

Many believe that some toxic substance is concerned in the production of the manifold and severe symptoms, which are notably as follows:

1. Anemia, with or without emaciation. Almost any degree and almost any blood picture may be present, accompanied by the usual symptoms of anemia. The hemoglobin is usually most affected; the red cells may be but slightly reduced with a marked fall of the hemoglobin; leukocytosis is not usually present; a decided eosinophilia is the rule; from 5% to 50%.

2. Gastro-intestinal symptoms are usually present, are often the first symptoms noticed; there may be flatulence, epigastric pain, and tenderness; dull or colicky pains in the abdomen; disturbed appetite, nausea and vomiting; constipation or diarrhea. Many patients show no other symptoms than those referable to the gastro-intestinal tract.

The mental condition is important, according to many observers, especially mental apathy, stupid expression and, according to Stiles, laziness. The temperature is not usually elevated, but may be so in some cases. Ashford, Manson, Smith, Craig and others report cases with varying degrees of temperature. The spleen is not usually supposed to be enlarged. Rheumatic pains may occur in the joints. The worm may be present and produce no symptoms whatever. The disease tends to run a chronic course unless modified by treatment.

Diagnosis. The possibility of this disease should be borne in mind when considering any of the anemias, as pernicious, secondary and chlorosis, and it should be especially remembered in the gastro-

*Read before the San Francisco County Medical Society, January, 1905.

intestinal disturbances of unknown origin or indefinite symptoms and possibly in fevers of unknown origin. The presence of an eosinophilia would of course lead one to suspect the disease. Once suspected there is usually no difficulty in finding the eggs of the worm in the stools.

Postmortem there may be found: 1, effusions into the cavities; 2, fatty degeneration of heart, liver and kidneys; 3, anemia of all the organs; 4, extravasations of blood in intestinal walls.

Prognosis as to complete recovery is usually excellent, though great difficulty may at times be met in expelling all of the parasites. Usually the symptoms ameliorate and improvement occurs under treatment even if all the worms are not expelled, but persistent treatment will eventually be successful. Without treatment, profound anemia and death may result.

Treatment. Thymol is the most efficacious remedy and may be given in cachets or capsules 15 to 30 grains at a dose repeated at hourly or two-hourly intervals until two or three doses have been administered. The intestinal tract should be thoroughly emptied by salines before the thymol is given and again a few hours after the last dose. Alcohol, oil, etc., solvents of thymol, should be avoided as absorption and poisoning may result. Male fern also has its advocates. Treatment should be carried out once a week until ova are no longer present in the stools.

Of the following cases, four occurred in Dr. P. M. Thomas' and in my own service in Dr. Hirschfelder's wards of the City and County Hospital and three in my practice. For the sake of brevity, only such data as directly bear on the subject under consideration are noted in these records. As far as I know, eight cases of this disease have been previously observed in this state, exclusive of a number of cases reported by Dr. Craig in the U. S. Army Hospital.

Case 1. W. T., male, age 52, American, City and County Hospital, May 28, 1904. During 1901 resided in Philippine Islands for several months. Enjoyed good health while there. After returning to this country the bowels were constipated at times; otherwise health perfect. Present illness began night before entering hospital with severe colicky pain in epigastrium, flatulence, vomiting, constipation and great thirst.

Examination showed a man, well-developed and nourished; tongue moist and slightly coated; violent pulsation in the vessels of the neck. Abdomen tympanitic and tender, especially over epigastrie and left hypochondriac regions. Spleen very much enlarged, extending slightly to right of median line and almost to umbilicus. Slight edema of ankles. Temperature 100° F. Urine showed a trace of albumin. Blood, in hemoglobin 62; red corpuscles 4,500,000; leukocytes 21,500; marked eosinophilia; stools, ova of uncinaria.

Temperature in this case was unusual and ranged between normal and 104° F. for a month and a half. During this time there were two intermissions, one of two and one of eight days. (See temperature chart No. 1.) The leukocytosis ranged between 14,000 and 22,000. The eosinophilia averaged about 7% and at one time disappeared entirely for several days. Widal reaction negative; agglutination test for Malta fever negative; blood was negative for malaria and spirillium of relapsing fever. It was not considered that the infection with the uncinaria was the cause of the symptoms in this case and treatment in that line had been omitted. During the second intermission of fever—about one month after entering Hospital—the spleen had become somewhat smaller, but the tenderness over it and the epigastrium remained the same.

Thymol was administered, gr. XXX, two doses and improvement was immediate; less tenderness in epigastrium and less flatulence. A week later thymol was again administered and almost immediately all symptoms disappeared, the spleen gradually retracted and on August 4th, when the patient left the Hospital it could be felt just within the costal border.

This case I reported before the Cooper College Science Club some months ago. During the discussion it was questioned whether the symptoms were produced by the uncinaria. In the absence of any other known cause and the fact that the symptoms ameliorated immediately under treatment with thymol, it is probable that the worm was responsible for at least some of the symptoms.

Case 2. C. P., girl, age 17, native of Italy. Disease began three years ago, while at school in Italy, with dizziness, occasional vomiting, diarrhea and pain in the stomach. Had gone barefooted and suffered from swelling and itching of feet. Was in a hospital in Genoa for seven months, where some improvement was noted. Came to United States two years ago and has been an invalid ever since. Has been under treatment for "blood disease" and at times shown quite marked but temporary improvement.

At present, September 28, 1904, complains of great weakness, listlessness, dyspnea on slight exertion, cessation of menstruation, etc. Bowels regular. Well developed and nourished; marked palor of visible mucous membranes; skin slightly olive tint; sclerae bluish and slightly icteric. Systolic murmur at base of heart and in vessels of neck. Venous humm on right side of neck. Moderate pulsation vessels of neck. Spleen enlarged 3 fingers beyond costal margin and slightly tender. Slight tenderness all over abdomen.

Hemoglobin 31; red cells, 2,012 000; leukocytes 4,400; eosinophilia 20%; smear showed marked evidence of anemia. Stool showed numerous ova of uncinaria and tricocephalus dispar. Under treatment with thymol, symptoms rapidly disappeared and patient gained her former strength.

November 7th, five weeks after treatment begun, hemoglobin 85; red blood corpuscles 4,000,000; eosinophalia 4%. December 31st, hemoglobin 93; red blood corpuscles 4,400,000; leukocytes 6,000; eosinophalia 8%. Smear showed no evidence of anemia. The patient appeared to be in perfect health.

Total number worms recovered: Uncinaria 177 (European variety); tricocephalus dispar, 30. This case had apparently been considered as a chlorosis, and without the demonstration of the eosinophilia, it was quite a natural error.

Case 3. Porto Rican; spent several years in Hawaiian Islands; admitted to City and County Hospital October 28, 1904. Complains of stomach trouble, pain in abdomen and flatulence. States he has lost about 40 pounds weight in last three years. Occasional attacks of diarrhea. Patient well developed and nourished. Decidedly apathetic. Tenderness all over abdomen, especially marked over epigastrium; no distention. Eosinophilia 16%; hemoglobin 66.

Thymol was administered—two 20-gr. doses—which the patient took badly. A week later two 30-gr. doses of thymol were followed by quite marked collapse. As the ova remained in the stools, male fern was repeatedly given and with practically no results. The symptoms were relieved temporarily to again return. Thymol was again exhibited in hourly doses of ten grains each, preceded by several doses of calomel. After this last treatment no ova have been observed in stools. The patient is still in hospital suffering from pain and tenderness in many joints of the body, which developed about the time the intestine was rid of the parasites. Worms recovered 150. (American variety).

Case 4. Porto Rican; age 19. Entered City and County Hospital October 31, 1904. No symptoms referable to the uncinaria. Blood, reds normal; hemoglobin 70%; eosinophilia, 26%; worms recovered, 60.

Case 5. L. P., male, age 29, American. Came to me November 5, 1904. Left Philippine Islands April, 1901. While there had diarrhea for eight months; occasionally passed blood; no gastric disturbances. Had dhobie itch between the toes. Had malaria. Since return to United States has had nephritis, occasional attacks of fever and has never felt well and strong.

Present Illness. For several weeks has had chilly sensations at night, and profuse sweats. Has felt feverish and weak. Loss of appetite. Well developed and nourished. Tongue coated, white. Spleen barely palpable, tender. Abdomen tender, especially in right iliac region and in epigastrium and over liver and spleen. Blood: eosinophilia 9%; no anemia. Urine: Specific gravity, 1028; acid; albumin 1/40 of 1% (Esbach); occasional granular and hyaline casts. Temperature. (See chart No. 2).

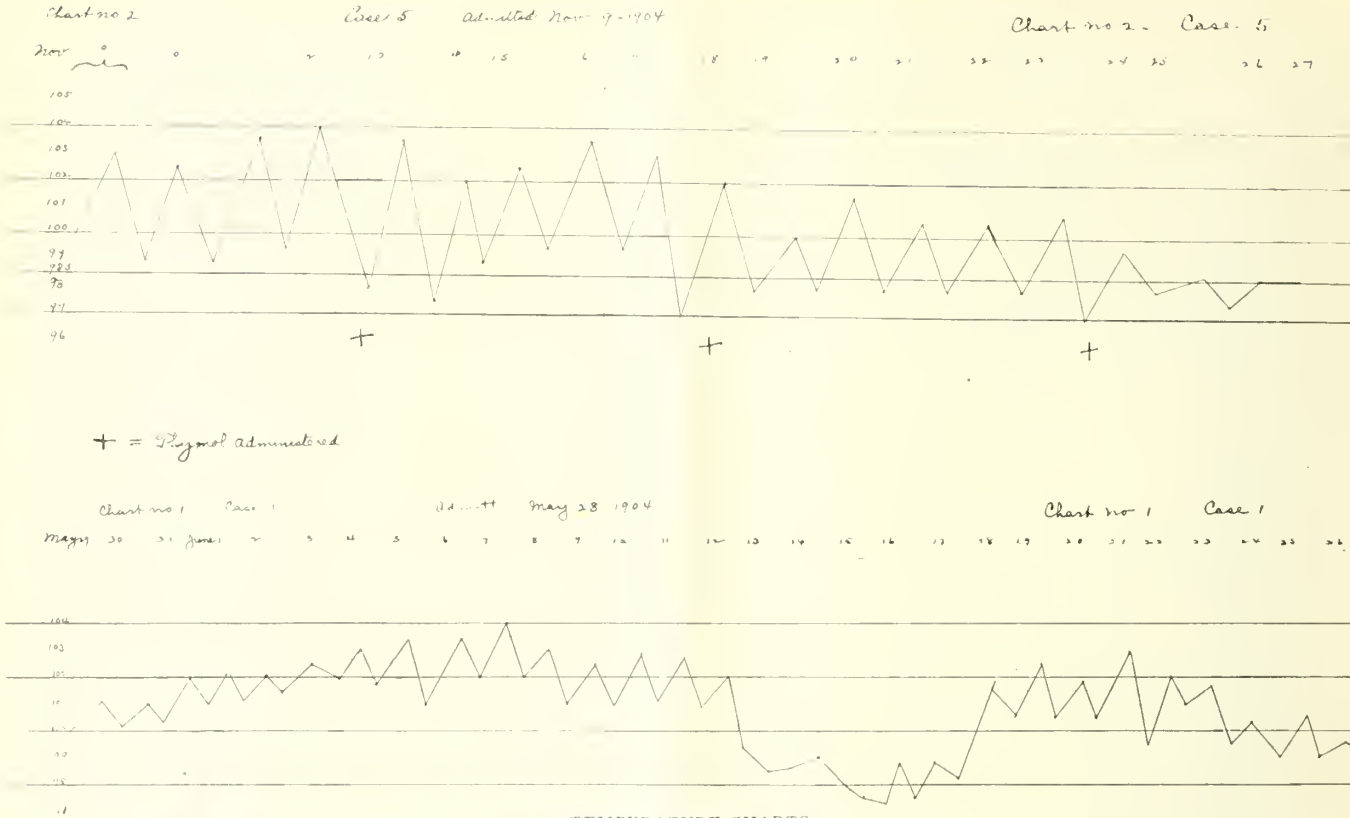
Thymol treatment. Disappearance of all symptoms; worms still present. Had to leave hospital for business reasons to resume treatment later. December 8, 1904; urine same as before treatment. January 5, 1905; patient appears perfectly well and is much stronger than he was before treatment was begun, but he is not as strong as he was before going to the Philippines.

Case 6. No symptoms. No anemia. Interesting on account of eosinophilia 3%. Stools; uncinaria and tricocephalus dispar.

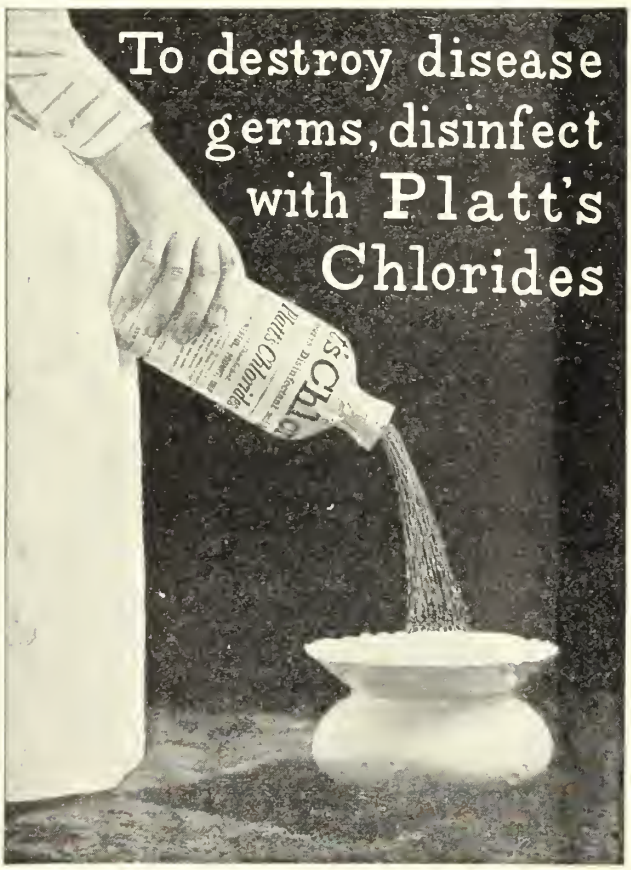
Case 7. A physician. Came to me December 10, 1904. Disease developed in Philippine Islands. While there had dhobie itch between the toes; occasional, very slight attacks of diarrhea and frequent attacks of flatulence, with some abdominal pains. For past three years, since return from the islands, has suffered from flatulence and diarrhea coming on at irregular intervals and lasting for three or four days. There has been no tenderness of abdomen except during attacks of diarrhea. The physical examination was negative. Blood, 12% eosinophilia. Stools, ova uncinaria and tricocephalus dispar fairly numerous. No treatment instituted as yet.

In conclusion, I should like to emphasize the importance of being on the lookout for this disease, especially here in California, where our population is of such a cosmopolitan character and where so many of us have at least visited tropical countries. It should not be forgotten also that in our country districts the disease may possibly become endemic.

(Temperature Charts, Page 130.)



TEMPERATURE CHARTS.



IN an address on Pulmonary Tuberculosis read at the State Medical Association, Waco, Texas, Professor David R. Fly, A.M., M.D., stated: "The chief medium of contagion is the atmosphere impregnated with dry particles of sputum expectorated upon sidewalks, flooring, bed or clothes, etc. It is obvious, then, that those engaged in making beds, sweeping and dusting rooms occupied by tuberculous patients, are most exposed. This danger, however, can be materially lessened by sprinkling the rooms with a solution of Platt's Chlorides, one part to ten of water."

The cuspidor should be washed out daily with boiling water, and a mixture of one part Platt's Chlorides and four of water kept constantly in it to receive the sputum. The patient's clothing should be kept by itself, and thoroughly boiled when washed.

FORMULA—A combination of the saturated solutions of Chloride Salts proportioned as follows: Zn 40 per cent., Pb 20, per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent. K 5 per cent.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

MAY, 1905.

THE A. M. A. MEETING.

The meeting of the A. M. A. will be held at Portland, Oregon, July 11-14, 1905.

EDITORIAL NOTES.

CALIFORNIA'S INVITATION.

To those of the A. M. A. who may journey to the Pacific Coast in July to attend the meeting at Portland we extend a hearty welcome. After you have enjoyed the hospitality of Portland and have seen the magnificent Columbia River territory, come south and let us, of California, entertain you and show you some of the wonders of our own state. From Portland to San Diego, you will find no stretch of country in all this whole United States so varied, so fascinating, so gloriously big and rich in the wealth of nature. We have taken the liberty of reprinting some things about California from those who know and love that whereof they speak, and will ask you to be good enough to turn to page 161 and thus have a fore-taste of what you may enjoy when you visit us. Some of you have been here before and fully realize what a California welcome means; others of you have yet to experience that sensation and to learn just how the word "welcome" is spelled.

INSURANCE EXAMINERS.

The JOURNAL very gladly publishes, on page 160, a letter from the secretary of the Placer County Medical Society on the subject of small fees from large companies for life insurance examinations. Several times has the JOURNAL commented on this subject and urged that physicians throughout the state refuse to make such examinations for a fee less than $5.00. Singularly, it is the so-called "old line" companies, the New York Life and its near relatives who have been receiving the attentions of a gentleman named Lawson, that are at fault in this matter. An examination by an incompetent man is worth less than nothing to the company, so far as protecting it is concerned, and an examination by a competent man is certainly worth the small sum of $5.00, if it is worth anything. Even with good men, sooner or later, cheap fees mean cheap work; and cheap work is, to the company, very costly work. The companies state that it is physicians themselves who are really to blame in this matter, and that offers from physicians of good standing to make examinations for fees less than $5.00 are very common. The JOURNAL has no definite knowledge that this is the case, but quite possibly it is so. There are men in the medical profession, and men of indisputable ability, who are so little regardful of the best ultimate interests of themselves and their fellow physicians that they will resort to almost anything to secure ready money. If this were not the case we would not find the "lodge doctor" and the "contract doctor" evils becoming more and more prominent subjects for discussion in medical societies throughout the country. If the physicians of the state will hark to the request of Placer County, and if they will simply refuse to make an insurance examination for less than $5.00, they will not only be doing themselves a material good but they will also be really aiding the insurance companies and the insured, for they will thus do away with the penny-wise and pound-foolish policy of cheap fees for cheap work, which is in itself a menace to the companies that follow it. The subject is certainly one well worth the careful consideration of every physician who is competent to make an insurance examination worth the making.

THE CUBA COMMISSION.

A short time ago the *New York Herald* sent a "commission" to Cuba to investigate its present sanitary condition. The "commission" went, examined and reported an amazing number of peculiar things. The gist of its report was to the effect that the sanitary condition in the new republic is unspeakably dreadful, and that yellow fever is to be as much feared as before Colonel Gorgas stamped it out. It certainly seems a bit singular that this unofficial and, as claimed by a number of journals, incompetent "commission" should be so at variance with the American Public Health Association, which recently met at Havana and found excellent sanitary condition. The "joker" seems to have been pointed out by *American Medicine*, and in connection with the insurance business, is certainly of interest. Up to the present time, only a very few insurance companies have ventured to do business in Cuba on account of the high mortality, and attendant great risk from yellow fever. The companies that have capital enough to shoulder the risk and write business

in the island, charge enormous premiums on account of this extra-hazardous complication. But since Colonel Gorgas rid Cuba of the pest, some of the smaller companies have been turning longing eyes upon this territory. Obviously, for the smaller companies to recognize the cessation of the extra risk and write insurance at normal rates, would be to force the other companies to do the same thing and thus cut down some of their iniquitous profits. Hence the "Commission" of the *Herald* finds conditions bad; very bad. Is the gentle hand of Mr. Lawson's "System" discernable in this wonderful "commission" and its biased findings?

HALL OF EXHIBITS.

The JOURNAL for July of last year commented upon the disgraceful character of the "Hall of Exhibits," the side-show of the American Medical Association. A member of the Publication Committee was taken to task for this editorial utterance, the argument being that the Trustees of the A. M. A. have nothing to do with this "hall"; that it is always arranged for by the local committee of arrangements: that this committee must provide (and pay for) the various meeting places required, and that consequently the "hall of (disgraceful) exhibits" has to be. That a large percentage of the remedies exhibited are "nostrums" (secret formula "proprietary" preparations), is not denied; that to "promote the use" of such stuff is "derogatory to professional character," is also not denied. In short, it is not denied that the "Hall of Exhibits" has been for years a disgrace to an association which promulgates a "Principles of Ethics"; but, it is denied that the Association, or the Trustees, have any responsibility in the matter! For several years the Trustees have had the Constitution and By-Laws framed just about as they wanted them, and modified from year to year just about as the "committee on constitution" thought they ought to be modified. It does not seem exactly the proper thing, therefore, for the Trustees to hide behind a by-law that is of their own endorsement if not of their own enacting (for many strange and curious—shall we say accidents?—have happened and are happening to the organic law of the Association) and say they have no responsibility. The Association is making a net profit of some $40,000.00 annually, yet it cannot afford to shoulder the expenses of its own meetings, but must needs shove them off upon a local committee, and allow the local committee to prostitute the Association for money. Dr. J. N. McCormack, the organizer of the A. M. A., says, in connection with some remarks upon state society meetings:*

> No exhibit should ever be permitted about the hall or its approaches, and the contracts should always require that they be closed during the hours of meeting. Nothing unethical should even be considered for the exhibit rooms, and probably nothing should be admitted which is not advertised in the state journal, where one is maintained.

* *Journal A. M. A.*, March 25, 1905, page 980.

If this is such good, sound advice for state societies, will some one tell us why it does not apply to the aggregate of these state bodies, the A. M. A.? But of course, if the things advertised in the *Journal A. M. A.* were to be admitted, Dr. McCormack's plea for decency would be of no avail.

SHAMELESS FRANKNESS.

These words of commendation for the newly acquired courage of the *Journal A. M. A.* are inspired by an article which appeared in a recent issue, and which we take the liberty of reprinting on page 151. We bespeak your careful consideration of this letter from the owner of the *New York Medical Journal* and the comment thereon by the *Journal A. M. A.* The *New York Medical Journal* has made claim to professional support and patronage on the score of its long service, the high grade of its editorial utterances and the wealth of scientific papers which it has printed. Quite recently, about the first of the year, it ventured to make claim to your support for these reasons and also on the ground that it published only "ethical advertising!" Its advertising pages are notoriously an abomination of desolations, and even its editorial pages have been bartered for coin. The letter from the owner and publisher to advertisers of nostrums, reproduced by the *Journal A. M. A.* in fac-simile and reprinted on page 151 of this JOURNAL, shows the management of the *New York Medical Journal* stripped of the mockery of disguise. No consideration of professional ethics is to limit its greed; no scruples shall deter it from doing its worst to undermine what is best in medicine; no thought for the desires or the wishes of decent and upright medical men shall weigh against the process of coining professional honesty and respectability into dirty, filthy, quackery-stamped dollars. And this is the "medical journal," gentlemen, which you are asked to support! Are the professional men of this country to continue forever to contribute to the support of a man who will openly and avowedly express himself as opposed to all that is for decency in materia medica? Are we going to complacently bear with this sort of insulting avarice? Are reputable medical men to be forever the stool pigeons of the conscienceless publisher of this stripe? Is it not time, gentlemen of the medical profession, that we took thought to ourselves and for our patients and came to a realization of the tremendous harm we are doing our profession and our patients by aiding in the perpetuation of this outrageous prostitution?

THE CANAL SANITATION.

Dr. Reed's observations anent things pertaining to the sanitary condition in the Canal Zone, seem to have stirred up considerable discussion. Dr. Reed is chairman of the Legislative Committee of the American Medical Association; he was sent to the Canal Zone as one of a commission of three, to appraise some real estate. While on the ground, he took advantage of his opportunity

to look into the reported mismanagement connected with the sanitary department of the Canal Commission. At the request of the Secretary of War, Dr. Reed's observations were, upon his return, put in writing and addressed to Mr. Taft; very shortly thereafter they appeared in the *Journal A. M. A.* As to the propriety of publishing this letter, there seems to have been some difference of opinion between Dr. Reed, Mr. Taft and Mr. Roosevelt. The two gentlemen last named regarded it as an official document and as such confidential and not to be made public except with the approval of the Secretary of War, Mr. Taft. Dr. Reed, on the contrary, considered it as a report from himself as chairman of an important committee of the A. M. A., and consequently regarded it as his duty to place his information before the members of the Association. The Canal Commission made a reply to Dr. Reed's charges of incompetence, but the reply is far from satisfactory. The President has since asked for and received the resignation of every member of the former commission—an admiral, a general, four civil engineers and a railroad man—and has appointed an entirely new commission. The new commission is practically a working body of three competent men and it seems probable that they will proceed to clean up the Zone and dig the ditch. In this day and generation the American people want results; they don't want rules, regulations, red tape and explanations; they want just one thing—*results*. That is just the thing they did not get, under the old commission, whose individual members were over jealous of their importance; there was a surfeit of red tape and lengthy explanations. We certainly congratulate the President upon his move, and there is every reason to believe that under the new order of things, Col. Gorgas' efforts will be helped instead of hindered. With the control of yellow fever and estivo-autumnal malaria, will go the successful digging of the ditch; without such control, the canal cannot and never could be completed. If Dr. Reed made a mistake in publishing his report, it would seem to be a very fortunate mistake; not only the committee of the Association of which he is chairman, but the entire Association, should back him up.

THE WILY POLITICIAN.

The physician is the only bread-winner whose duty, conscientiously lived up to, is to work against his own business interests. The whole history of medicine shows an unending effort on the part of its followers to prevent disease; to prevent epidemics; to prevent accidents; and yet it is from the existence of disease and accidental injury that the physician derives his meager support. Medical men have, since a time when the memory of man runneth not to the contrary, recognized that their first responsibility is to the public; that their paramount duty is the safeguarding of the life and health of the citizen. In so far as his work in sanitation and against disease is concerned, no one can dispute the fact that the physician has always done more than his simple duty. But there is another and a greater responsibility which we, too often, have ignored. The conscientious physician should concern himself with the politics of his community. It is his fault if bad or incompetent men are elected to become law makers and by their venality or stupidity do great harm to the community. It is with a full realization of that fact that the JOURNAL takes pleasure in publishing, on page 160, a letter from Dr. Himmelsbach which is directly pertinent. Consider the last legislature; if a man of the Leavitt stripe had been governor of the state, in place of the accomplished physician who occupies that office, the antivaccination bill, a measure drawn by a few brainless cranks and passed by a process of political log-rolling, would have become a law. Had this catastrophy occurred, the "self-complacent citizen," the citizen who is "above" politics and who allows the scum of his district to run the primary elections, and with a shrug of the shoulders takes the consequences, would have been to blame. Unfortunately, too many of us have forgotten this phase of our duty to the state and may well be classed as "complacent citizens." Are we always to be so "complacent?" Are we always to fail of this portion of our duty? Are we always to forget the influence in the community which is ours, if we will but use it, by right of self-sacrificing devotion to the public? In two years there will be another legislature assembled; in two short years there will be other cranks—for the crank never dies and never tires—with other foolish or vicious bills. Is it not our simple, plain duty, to take a hand in the election of those who are to make or mar the laws of our state and thus exercise still more fully our duty to the public in the protection of its units?

SUCH A VIRTUE!

We have received several letters commenting favorably upon the newly acquired virtuous courage of the *Journal A. M. A.*, and congratulating us upon forcing the powers that be in the Association to really promise to do something toward cleaning up the *Journal*. Aside from the statement of the Council on Pharmacy and Chemistry, published in your JOURNAL last month, and some rather interesting editorials, nothing seems to have happened as yet. The *Journal A. M. A.* continues to advertise—without formulas—about the same number of proprietary mixtures. It continues to promote the use of a couple of nostrums which it has previously said, in its editoral pages, should never receive professional recognition, and it also presents for the edification of the members of the Association the advertisement of a remedy which is advertised in nearly every lay periodical published. Possibly there has not been sufficient time in which to attend to these trifling details. If the advertising pages are still unclean, we ought at least to be thankful for a courageous editorial expression anent the subject, and we may look

forward, with feelings of mixed confidence and scepticism, to the future. It certainly is delightful to see the *Journal A. M. A.* actually waking up to the fact that it can no longer enjoy those somnolent dreams of megalomania that permit it to ignore the "undignified" things—unethical advertisements. If the Association is to maintain its position and hold the allegiance of the component bodies, it must take an active part in these questions that are of vital import to the profession, and through its *Journal* it must speak of things that are not abstractly scientific. This, we are glad to see, seems to have been appreciated at last.

A SAD DEATH.

Once more has a physician, realizing full well the danger and the risk of his calling, laid down his life for his patient. Particularly sad is the death of Dr. Albert B. Craig, of Philadelphia, one of the subeditors of *American Medicine*. He was one of the most promising of the younger physicians of Philadelphia, and had been married but 5 months. He was called to attend a patient suffering from the fulminant type of cerebrospinal meningitis, which has been for some time epidemic in the East. The patient was without friends and Dr. Craig devoted himself almost continuously to attendance upon the unfortunate sufferer. The result was disastrous. Ere long Dr. Craig diagnosed the onset of symptoms of the disease in himself, and with thought for the outcome, arranged his affairs and prepared to die. His last words might well be taken to heart by everyone of us, for truly, we, as physicians, may say, "We know not the day nor the hour:" "I am neither ashamed nor afraid to die."

OUR PRESENT CONDITION.

The reports of the various officers of the Society, presented at the recent meeting, show that the Society is in a very healthy condition. Business aggregating over $12,000.00 was transacted without loss and the publications were materially enhanced in value during the year. The JOURNAL has increased 12 pages in size and must shortly be again increased. The Register now includes Oregon and Washington, which has been found to be a very useful addition during the year past. On April 1st there were 1,664 members, but at the time of the present writing there are approximately 1,700. The Society shows a good healthy growth, due to the fact that almost every county society in the state has increased somewhat in membership during the year. Prosecution of illegal practitioners has been undertaken all over the state, and in the vast majority of cases, the result has been conviction, or the illegal chap has run away. Two new county societies were organized during the past year, and arrangements are in the making for the organization of several more during the summer months. The full text of the various reports will appear in the next number of the JOURNAL, and from them it will be evident that the business of the Society has been transacted in a businesslike way, and that the further development suggested is well within the limits of what may safely be undertaken. Owing to the distance from the place of publication, a full report of the meeting in April may not be published till the June number is issued, but the more important matters will be found in this number. It may be interesting to our members to note that their JOURNAL refused to accept 6 pages of advertising which did not comply with the rules adopted by the A. M. A. in 1895 and 1900, in spite of the fact that these things are being advertised in the pages of the Association *Journal* in direct and open violation of these same rules.

TENDON SURGERY.

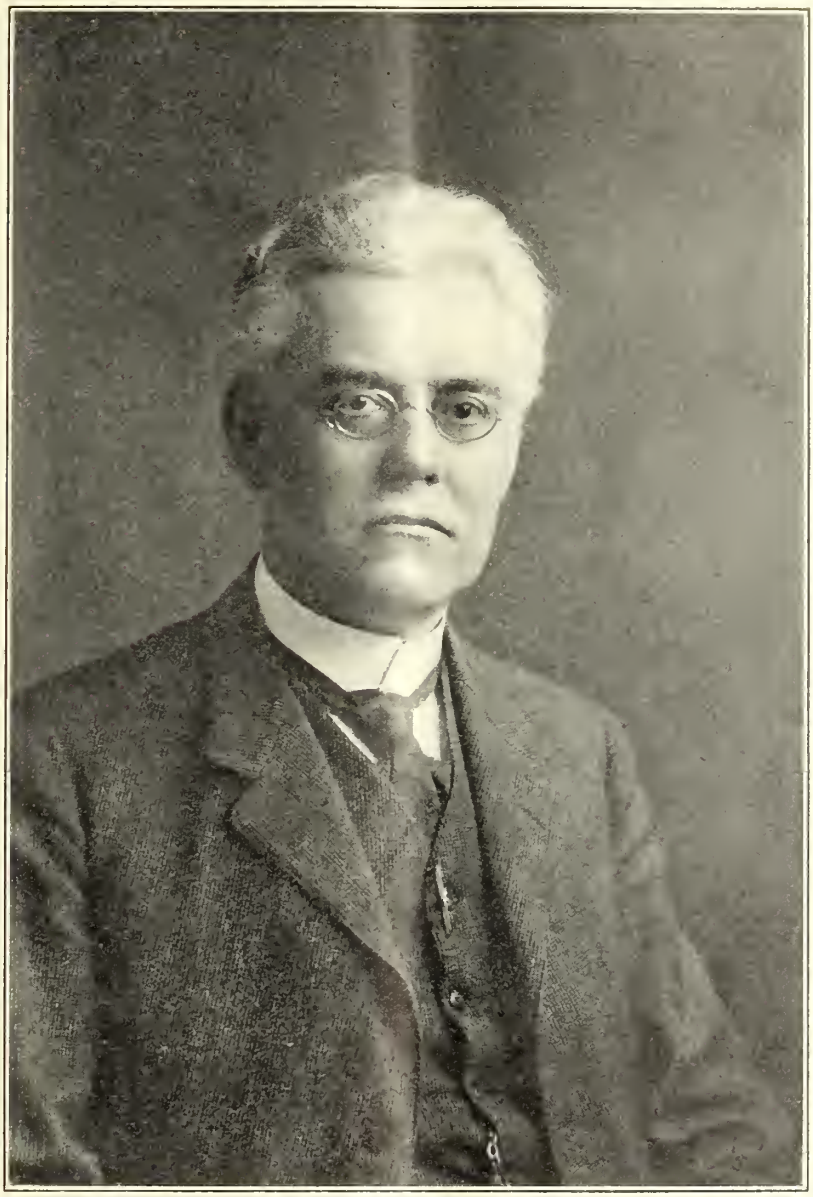
With the present issue, the JOURNAL begins the publication of an essay by Lange on the subject of tendon transplantation. The opinion of those whose special attention has been devoted to this particular field of surgery, is to the effect that the paper of Lange is by far the best presentation of the subject yet printed. It has not appeared in English, up to the present time, and we therefore take pleasure in giving it space. The translator has followed very closely the German text, and this, while in some cases it may detract from the smoothness of style, is rather an added advantage, as it preserves the detail of the original author. As the paper is long it will necessarily be continued through several numbers of the JOURNAL.

Proprietaries in Present Day Prescriptions.

"In the domain of science every fact is a legal tender." Publicity is essential to progress. In medicine secrecy stultifies the calling and its followers, making it the only learned profession of the age which, in so far, yet lingers in the embrace of the middle ages. Obviously no real therapeutic progress is possible where the prescriber and the world is informed only that the triumphant conduct of a certain case from death's door to convalescence has been wrought through the mediumship of "Puffer's Preposterous Painfugine," with the composition of which the enterprising manufacturer has not seen fit to entrust the complacent prescriber.

The present generation is skeptical and becoming more so; it stands in awe of nothing, and the reverential awe with which the layman formerly habitually viewed the physician is rapidly approaching the vanishing point, to which finality nothing is better calculated than this unethical and suicidal practice.

To revert to our proposed classification, considering the first journal at hand, we find advertisements of thirty reputable preparations, seven doubtful, eighteen semi-fakes, and thirteen positive fakes. A less liberal classification would more than double the latter number. Among the latter we find, in the body of an advertisement, a eulogistic notice from the pen of an eminent physician and medical professor, to the effect that he now habitually uses in certain cases lithia in the form of a new salt, the preparation in question. This case fairly illustrates our contention that therapeutic progress is not possible so long as secret medicines are countenanced by reputable physicians. Note this belauded preparation gets full credit, and incidentally the fakir full profit, for the cures which this eminent professor-physician claims as due to this new salt of lithia.—Prof. W. S. Jackman, of Orono, in *Journal of Medicine and Science*, Portland, Feb., 1905.



FRANK L. ADAMS, M. D.
President of the State Medical Society, 1904-1905.

Dr. Frank Lemuel Adams was born in Troy, New York, July 30, 1858, where his father, John Smalley Adams, was engaged in the practice of medicine and surgery. His mother, Ellen Tompkins, was a daughter of Clark Tompkins, an iron manufacturer and inventor of that city and a graduate of Fort Edward Institute.

His father was compelled to come to California on account of failing health. In 1863, accompanied by his wife and son, he crossed the plains in an emigrant wagon and became a resident of this state. He finally located in Oakland and in 1877 formed a partnership with the late Dr. A. H. Agard.

The subject of this sketch received his preliminary education at the public schools, McClure's Military Academy and the Oakland High School. In 1877 he entered the University of California and graduated in 1881 receiving the degree of A. B. In 1883 he graduated from the Cooper Medical College and served one year as interne in the City and County Hospital in San Francisco. He then located in Oakland and was associated with Drs. Agard and Adams in the practice of medicine and surgery until they were both removed by death.

Dr. Adams has served two terms as a member of the Oakland Board of Health and one term as Health Officer; he has also been President of the Alameda County Medical Association. He is a member of the Zeta Psi Fraternity, the Athenian Club, Reliance Club, Nile Club and Claremont Country Club. He is President and one of the founders of the Oakland College of Medicine and Surgery; also professor of clinical surgery in that institution. He is a member and Treasurer of the Pacific Association of Railway Surgeons.

In 1889 he married Mary Wickham Leigh, daughter of Camille Bowie and the late Major John Wickham Leigh. There are two daughters, Nellie Leigh and Camille Bowie Adams. At present he is associated with his cousin, Lemuel Payson Adams, in the practice of medicine and surgery.

ADDRESS OF THE PRESIDENT.

Thirty-fifth Annual Meeting of the Medical Society of the State of California.

FRANK L. ADAMS, M. D., Oakland.

Herbert Spencer has divided education into mental, moral and physical and has shown in his masterly way that a perfect physique and physical well-being are the foundations for the other two. He demonstrates that degeneracy, in plants and animals, as well as man, is sure to follow where the environment is unfavorable and calls attention to the rapid degeneracy observed in large cities caused by long hours of continual toil, foul air, impure water, insufficient food, adulterated food and a lack of outdoor exercise and proper recreation. He says: "Of all bequests of parents to children, the most valuable is a sound constitution." He believes this to be the basis not only of individual but also of general happiness, and shows clearly that the physical well-being of the individual is of paramount importance, not only to the man himself, but to the family, the neighborhood, the city and the state. Again he says: "The well-being of each is involved with the well-being of all in sundry other ways. Whatever conduces to their vigor concerns him, for it diminishes the cost of everything he buys, whatever conduces to their freedom from disease concerns him, for it diminishes his own liability to disease. Whatever raises their intelligence concerns him, for inconveniences are daily entailed on him by others' ignorance or folly. Whatever raises their moral character concerns him, for at every turn he suffers from the average inconscientiousness."

The physician, by reason of his profession, his general education and special training, owes a sacred duty to the state to advance the well-being of his fellow-man. The slums of great cities are not only a reproach to our so-called modern civilization, but also to our own profession. They are physical, mental and moral plague spots and have arisen, as Jacob Riis has shown, largely through the greed of the landlord, who seeks ten, fifteen and twenty per cent upon his capital instead of five per cent, which is considered a high rate in large business centers upon safe investments. It is said that the United States has at the present time, one-twentieth of the entire population of the earth, and one-quarter of its wealth, and yet, in our metropolis of wealth and population, we expose to the thoughtless gaze of the tourist, and the fashionable seeker for adventure and novelty, the shame and disgrace of our great nation.

At the World's Fair in St. Louis, could be seen several models of the tenements in the New York tenement districts. In a single square, hundreds of wretched human beings are crowded, no proper ventilation, no sunlight, one toilet for twenty-five people, and not one bath in an entire block. Three hundred and fifty thousand sleeping rooms in New York City are so-called "inside rooms" and receive air and sunlight, if any, from shafts often only two or three feet in width. In London, thousands upon thousands have insufficient food. Six or eight people eat, live, work and sleep in a single room. In countless instances, it is a well-known fact that one person will occupy a bed for eight hours, a second for eight hours more, and finally a third, will take his turn for his eight hours showing how watchful the modern statesman is for the welfare of his fellow-man. Seven millions for a modern battleship, an engine for maiming, murdering and destroying while our boards of health are denied the pittance needed for the elevation and preservation of our race.

In New York City, the worst tenements, brothels and whisky shops were found on property owned by the richest church corporation in the United States. That powerful body, by reason of the wealth, high social standing, and political power of its members, did more to retard enlightened sanitation than any other single factor in the metropolis. Yet that same corporate body spends thousands upon thousands every year in the establishment of missions and in teaching the inhabitants of the slums the road to that higher life which they never can attain. What think you will be the history of the inhabitants of these districts and their descendants? Physical, mental and moral degeneracy can be the only result. The crowded factory, the sweat-shop, the lighted streets, and later on the hospital, the alms-house, the jail and the pauper's grave.

TUBERCULOSIS.

Koch, in demonstrating the cause of tuberculosis, made one of the greatest discoveries in the history of medicine. Of our seventy-five millions of population, it has been estimated by the statistician that eight to ten million will die from some form of this disease. The great white plague costs our nation three hundred and thirty millions of dollars per year in the lost labor of this vast army, in the money expended in caring for those who are unable to care for themselves and also those who are dependent upon them. Medical science has demonstrated that this disease is produced by a specific bacillus and that it is undoubtedly communicable, although its communicability is comparatively slight when proper precautionary measures are observed. It has also been demonstrated that tuberculosis is preventable, that it is not hereditary, that it is curable in its early stages, and that a large percentage of those fairly well advanced, can be successfully treated. It can be prevented by sanitation and its further communicability from one to another can be stopped by precautionary measures, which can be readily taught by physicians and by boards of health through leaflets and circulars given to the members of a household where such unfortunates are found.

Compulsory registration of tuberculosis by physicians is probably one of the most important methods of combating this disease. While physicians have been foremost in seeing the danger from this scourge, and have been most energetic in its prevention, and further extension, the profession, as a body, has not only been indifferent, but in many instances has earnestly opposed the action of boards of health in obtaining report of tuberculosis patients and have bitterly combated compulsory registration. Tuberculosis should be reported with the same care as small-pox, scarlatina, diphtheria and other contagious diseases. Boards of health cannot correct improper sanitation and carry out efficient means of disinfection without the co-operation and intelligent support of the entire profession. In every community, the physician should be, by nature of his calling, an active member of the board of health, and a thorough sanitarian. In New York City it has been estimated that in fifteen years the death rate has been reduced forty per cent by the efforts of the health authorities. In Boston, similar results have been obtained, by reason of the thorough information given by physicians and by careful methods of disinfection. Systematic inspections should be made of factories, work-shops, tenements and school-houses in order to improve plumbing, draining and ventilation and also to enforce cleanliness and to prevent over-crowding. Playgrounds for children should also be provided, especially in districts where the population is most dense, and parks for recreation and amusement. Physiology and hygiene, as now taught in many of the public schools will train the future citizens in the importance of fresh air and sanitation and a proper method of living. The gradual introduction of scientific gymnastics in our grammar schools, high schools and universities, will do much to improve our standard of physical development and to train the students in the importance of a sound body in the attainment of the highest degree of mental and manual skill. The youth of this country should be taught that sickness is not a visitation of God but that it arises in the

great majority of instances from purely preventable causes and that cleanliness and sanitation are far more efficacious in averting disaster than many prayers.

The patient and the members of the household should be carefully instructed by the physician in regard to the nature of this disease, and the health department should at once be informed of the presence of tuberculosis in order that a thorough inspection of the premises can be made and all violations of sanitary laws corrected. Printed leaflets or circulars giving full instructions as to the care of sputum, ventilation and cleanliness should at once be sent to the dwelling. The proper disinfection and disposition of the sputum and dejecta is of the first importance in preventing the further extension of infection to others; and printed directions will be received with more thought and consideration than mere verbal instruction. When death occurs, the tenement should be thoroughly cleansed, the wall-papers removed and the infected rooms thoroughly disinfected with formalin. Isolation and quarantine are extreme measures and unjustifiable, and would, in all probability, defeat such rational legislation as we may desire to obtain. Anti-expectoration ordinances, however, appeal to the public as being wise and proper and their adoption in many of our leading cities is a most important aid in preventing the further extension of this disease. In New York City, where the streets were swept dry, it was found that tuberculosis greatly increased among the laborers; whereas in Berlin, where the streets were sprinkled before being cleaned, the laborers remained healthy.

Teachers and pupils suffering from tuberculosis should be excluded from the public schools, and boards of health should be given power to see that such exclusion is enforced. It has been shown that a single tuberculous cow in a crowded dairy will infect an entire herd, and it is safe to say, that, in a crowded schoolroom, a tuberculous teacher or pupil will be a source of imminent danger to all those who come in close personal contact with such an one; and this will be especially true in the case of the rapidly growing child.

The busy physician too often considers that his duty has been performed when he has made a diagnosis and given proper instruction and advice to the patient; but it is certainly his duty to advise the members of the household of the danger to others and to give careful admonition in regard to the liability of others to contagion. One of my confreres had a patient suffering from advanced tuberculosis, and notwithstanding his careful instruction, a brother, who was a professional athlete, and in the best of physical condition, obstinately persisted in occupying the same room with his sick brother, and as a result died in six months from rapid consumption.

The most important public measures that have been recommended for the treatment of tuberculous patients have been:

1st. Dispensaries for out-patients, where instruction is given in regard to fresh air, diet, general sanitation, preventive measures and the administration of such remedies as are suited to the individual;

2nd. District nurses who care for such patients in their homes and give advice as to the disposition of sputum, the ventilation of rooms and the general care of the invalid;

3rd. Sanatoria for the care and cure of the hopeful cases;

4th. Hospitals for those who are considered incurable and have no means to provide care for themselves;

5th. A separate department for the care of the criminal who suffers from tuberculosis;

6th. A similar provision for the tuberculosis insane;

7th. The provision of farms and open air shops for patients who may recover by light work in the open air and who do not wish to be objects of public charity.

The different procedures have been used in this and other countries with success and much attention has been given by many of our profession to this important subject in order to arouse the general public in regard to the necessity of state aid. Preventive measures in tuberculosis would undoubtedly in a few years decidedly change our statistics; and it is fair to presume that if typhoid fever can be reduced by proper sanitation to one-tenth in a few years, similar results might be obtained in tuberculous diseases.

Those who are suffering from advanced tuberculosis should not be permitted to ride in crowded Pullmans and it should be the business of the railroad companies to provide a proper compartment for them in order to protect the traveling public.

BOVINE TUBERCULOSIS.

After carefully reading the bulletin of the Ohio Agricultural Experiment Station and the reports on bovine tuberculosis and public health by D. E. Salmon, D. V. M., Chief of the Bureau of Animal Industry, U. S. Department of Agriculture, the following definite conclusions are formed:

1st. "This disease is caused by the growth within the animal tissues of a vegetable organism, bacillus tuberculosis;"

2nd. "The bacterium of bovine tuberculosis has not been specifically differentiated from that producing tuberculosis in the human subject;"

3rd. The cultures from a human source as a rule are less virulent than the bovine. Cultures, however, have obtained, which have been proven to be equally virulent.

4th. General tuberculosis, miliary tuberculosis and local tuberculosis have been produced in cattle and other animals by the ingestion, subcutaneous and intravenous injections of cultures obtained from the human being. Similar results have been obtained by using human sputum and pieces of tubercular tissue.

5th. Two forms of the bacillus occur in man, namely the human and the bovine. These differ both microscopically and in their manner of growth, and are probably variations of the same bacillus. If they be distinct organisms, the presence of the bovine form can only be explained by contamination from a bovine source.

6th. When lower animals have been inoculated with tuberculous material taken from men and cattle, the tubercular lesions cannot be differentiated upon autopsy.

7th. Tuberculin, from a human source, has been used by the Bureau of Animal Industry, in testing tuberculosis in cattle, and it has invariably demonstrated the existence of the disease in infected herds.

8th. "Tuberculosis has been produced in man by inoculation with tuberculous material from cattle." Both local and general tuberculosis have been produced in this manner and the nature of the infection has been demonstrated by the microscope, by culture and by inoculation. Numerous cases attended with fatal results have been reported.

9th. "The development of tuberculosis in human subjects has followed in so many instances upon the use of meat or milk of tuberculous cattle that there is no room to doubt that the disease is transmitted from cattle to man in this manner."

Many cases have been reported where both veterinary and medical experts have believed that miliary, intestinal and general tuberculosis have been produced by the ingestion of milk from cattle proven to be tuberculous. Ollivier reported to the Paris Academy of Medicine an instance where twelve young ladies without a family history of this disease, developed symptoms of intestinal tuberculosis and five died. The cow supplying milk to this school died of tuberculosis of the intestines and udder. It has been claimed that the milk is a source of danger only when there is tuberculosis of the udder, but it has been proven that fifteen per cent of tuberculous cattle

produce infections milk while only two per cent have tuberculosis of the udder.

That tuberculous milk may be a source of danger seems to have been demonstrated by the experiment of Nicolas and Descos who fed dogs with food filled with tubercle bacilli, and in three to four hours demonstrated their presence by staining and by inoculation in the receptaculum chyli and the thoracic duct. These animals were thoroughly examined and those with pre-existing tuberculosis carefully excluded.

10th. Careful statistical studies show that while there has been a large diminution in the general mortality from tubercular diseases, that, instead of a corresponding diminution of the mortality in children during the milk-consumption period, there has been a marked increase.

11th. That tuberculosis is a germ disease caused as surely by contagion or infection as are small-pox and measles, is confirmed not only by the innumerable cases in which it has spread through herds from single animals but also by the fact that many herds of cattle remain exempt from it and this fact demonstrates the possibility of the entire eradication of the disease.

12th. "In view of the experience of the other states, it would seem that the rational method of extirpating bovine tuberculosis lies not only in the wholesale and immediate testing of all cattle in the state and the slaughter of all reacting animals, but in such municipal action as will control the sale of both milk and meat within municipal limits."

13th. Tuberculous cattle are the subjects of mixed infection and sceptic fever. The flesh and milk of such animals is certainly unfit for food and should be strictly prohibited by law.

The inspection and supervision of dairies by boards of health are most important sanitary measures and will in time greatly reduce the large infant mortality of our cities. Veterinary experts have demonstrated time and again the accuracy of the tuberculin test in proving the existence of tuberculosis and we never can be sure of the purity of the milk supply until such tests are legally enforced. I myself have repeatedly seen cows which were sleek, fat and giving abundance of milk respond promptly to the test.

These animals have been pronounced by expert dairymen to be sound in every respect, but when killed showed marked lesions of the disease in the lungs, abdomen and udder. Numerous cases could be cited where healthy children, living in good, sanitary surroundings, and without a family history of tuberculosis, have developed the disease and the milk supply has been traced to dairies filled with tuberculous cattle. Admitting, for the sake of argument, that bovine tuberculosis cannot be transmitted to the human race, I think it would require much time to find a physician of education and standing who would recommend the milk of tuberculous animals as proper food for the growing infant. The intelligent dairyman will in time learn that it is to his advantage from a strictly business standpoint, to rid his herd of this disease, and that he will be amply repaid by the improved quality and quantity of its product.

THE HEYBURN BILL.

The Heyburn bill brought before Congress to prevent the adulteration of foods of all kinds, drugs and liquors, has received the unqualified support of the medical men throughout the whole United States. Nothing concerns more the future welfare of our nation than the establishment by the government of standards of purity for all the articles mentioned in this bill. It is impossible to produce a strong and vigorous race unless foods of every description are sound and wholesome, and the one who tampers with the quality of goods consumed by the people and is false in his weights and measures, should be punished with severity and dispatch. It is astonishing and astounding to read the reports in our various medical magazines showing how common and flagrant is the adulteration of drugs dispensed by the pharmacist. Such methods are certain to result in much harm and the loss of many valuable lives. The physician by watchfulness and care can certainly do much to correct this unfortunate condition. Let it be our concern to see that our patients receive our prescriptions as ordered and in case of willful adulteration make it our business to see that the offender is punished.

THE CRIMINAL ABORTIONIST.

The criminal abortionist and the vendor of abortive drugs who openly and shamelessly expose their own infamy in the daily prints of our great cities are surely descendants of the original plagues which were turned loose upon a suffering world. The one sending obscene publications, obscene letters and lottery advertisements through the mails can be punished by heavy fines and imprisonment or both.

A paper giving advertising space to an unconvicted felon, or to one who has already been convicted of this crime and has served his term in the state penitentiary, and who offers in print to commit other felonies at so much per felony, should be denied the service of the United States mails. An inspector of mails has said that the law is absolutely plain and clearly covers this class of cases and that he will at once take action and enforce the execution of the law.

PATENT MEDICINES.

Patent medicines and cure-alls are another source of evil and although it may be years before proper legislation can be obtained such laws as are observed in France would be a great boon. The ingredients of such nostrums should be printed upon the package sold and the mystery of the cure, which is its chief attraction to the innocent and ignorant would be exposed and failure would be the logical result. The public would not be beguiled into buying a sure specific for some incurable disease, which is known to be some simple remedy which might be purchased for a trifle at the nearest drug-shop.

SECRET PREPARATIONS.

Our STATE MEDICAL JOURNAL and all our county societies have boldly denounced the *Journal of the American Medical Association* and other medical journals whose pages are filled with advertisements of proprietary articles and secret preparations, which, too many of our medical men aid in foisting upon a trusting public. The trustees of the American Medical Association are acting in violation of the principles of medical ethics and have acted in opposition to the just and earnest protests of this state organization. When our leaders with names honored in the medical world, give space for a consideration to unscrupulous drug-houses, is it strange that many physicians prescribe combinations of drugs about which they know nothing and pour them into stomachs about which they know less, and then trust to kind Heaven to affect a cure? Our pharmacopeia is certainly ample for our needs, as it contains all remedies which have been scientifically analyzed by the chemist and clinically tried by the clinician; we can certainly duplicate anything of value which has been exploited as a special preparation in the simple terms of our dispensatory.

THE MEDICAL LAW.

Our present medical law in regard to the examination, qualification and licensing of physicians and surgeons has been endorsed by this association and it is through the zealous and unselfish action of its members that this law was finally passed and put in force. This law has done much to raise the medical standard of education, and it certainly redounds to our credit that we are endeavoring to attain to the highest degree of excellence and skill in the science and art of curing the ills of man. Be it said to our credit and honor that no one can truthfully say, that all our efforts in regard to legislation have not been for

the good of our fellow-man. As long as this is our aim, we shall enjoy the confidence and trust of the public, and when thoroughly united upon a given course of action, we can obtain any law we deem wise and proper.

THE STATE BOARD OF MEDICAL EXAMINERS.

The members of the State Board of Medical Examiners have been those who have placed the medical law in active operation and it is through their efforts that the law has become a law as well in fact as in theory. They are the judges who see that this enactment is enforced and that the objects of those who frame this decree are carried out. Unless the men upon this board are capable, active, energetic and fearless, our medical law will be ineffective and inoperative. This legislative act has been brought before the Supreme Court, and it has been decided that it is in accord with our State Constitution. The Board has endeavored to make its examinations as rigid and as severe as those in any state and to set a high standard for medical education in both theory and practice. They have acted boldly, fearlessly and without favor, and it is our duty and pleasure to congratulate them upon the able accomplishment of a most difficult and arduous task.

REGISTRATION OF NURSES.

The act brought before our Legislature providing for the registration of graduate and qualified nurses and to create a State Board of Examiners for the same has received the active co-operation of the medical profession. The raising of the standards for admission to our best training schools has no doubt increased the efficiency and skill of the nurse and will elevate nursing to the dignity of a profession and will call to our aid the best intellects and best trained minds. The time is near at hand when it will be contrary to law for us to place lives of our patients in the hands of unskilled and untrained nurses.

STATE LABORATORY.

The establishment of a state laboratory at Berkeley has been proposed and will in time doubtless become an accomplished fact. This laboratory would be at the service of the State Board of Health and also local boards of health as well as individual physicians who are unable, on account of the great expense of equipment and maintenance, to avail themselves of such facilities. In this way, and no other, can the widespread adulteration of foods, the sophistication of drugs and the use of dangerous preservatives be thoroughly exposed and punished. Such an institution need not be a great burden to the state, as much of the work is done by advanced medical students and recent graduates who eagerly seek such positions for the advantage of the special training in chemistry, bacteriology, pathology and sanitation.

VACCINATION.

The anti-vaccination bill which passed both houses and was finally vetoed by our Governor, is an evidence of what may be accomplished by misrepresentation, ignorance and enthusiasm. It is a pitiful and sad commentary upon the intelligence of our legislators who acted in direct opposition to our State Board of Health, the local boards of health, our county societies, and the best medical experts throughout the world. These have all said in substance that small-pox can be prevented and practically eliminated by vaccination and re-vaccination; and these agents alone can combat and destroy one of the greatest scourges which has cursed our race. The great Jenner, by his discovery, has saved more lives than the vast armies of Europe have destroyed, and has saved more wealth to her nations than has been wasted in needless wars. Let us therefore be thankful and praise God that our legislature has adjourned.

COUNTY SOCIETIES.

It has been proposed by many members of this association that the county societies should receive all members of the medical profession who are legally qualified to practice medicine. They say, "Take them all in, the good and bad alike, and if the bad are still bad, we have them where we can discipline them." We should not turn our medical societies into reformatories, but should see that they represent all that is good, honest and honorable in the profession and in this way only can we exert power and command the respect of the communities in which these associations exist. I do believe, however, that men who agree not to practice or support sectarian medicine should be received regardless of schools. This is an age of liberality, when all class distinctions and old-time differences should be things of the past. Let us endeavor to promote union and harmony, and in the words of the immortal Lincoln, "With malice toward none, with charity for all," follow that God-like art of curing the ills of man which regards not race, color or creed. Let us be physicians in the broadest and most liberal sense and welcome to our ranks all those who love science for herself and knowledge for its possession. Let us follow in the path of Him who was called the Great Physician, and gave us the Golden Rule, which is the essence of all our medical ethics.

Superlative Nerve.

A number of comments from manufacturers on the announced plan of the Council of Pharmacy and Chemistry of the A. M. A., are published in the *Journal*. Among them we note the following from the Gardner-Barada Co.: Everything contained in the announcement and circular is unqualifiedly and absolutely endorsed. Every rule is conducive to good, and not one of these rules, even in its strictest interpretation, will harm any honest manufacturer. Our labels, etc., will be ordered to be changed as fast as the presses can print them.

And this from the concern that said its stuff contained "lithium methaminate," a chemical product of the imagination, and now says that the same stuff contains "lithium-comp with formaldehyde," whatever that may be, and is advertising in the pages of the *Journal* A. M. A. Evidently a lie was told either first or last, yet the *Journal* continues to "promote the use" of this concern's stuff!

Dr. Rupert Blue, who has had charge of the Marine Hospital Service of San Francisco, has been transferred to the Marine Hospital, Norfolk, Virginia. Dr. Blue left for that place on April 4th.

Portland Meeting of the A. M. A.

Portland is well supplied with hotel accommodations; but on account of the great number of people who will attend the Lewis and Clark Fair it would be well for all intending visitors to secure rooms in advance through the Committee of Arrangements. (K. A. G. Mackenzie, M. D., chairman, 506 Dekum Bldg., Portland, Ore.) The committee having this in hand expect to secure rooms sufficient to meet all requirements of our visitors and by an organized messenger service to be able to locate them promptly upon arrival. Rates will probably be a slight advance on ordinary charges, but not excessive in any case.

The following will give an approximate idea to those East of us of rates to Portland: Missouri River points (round trip), $45.00; Chicago (round trip), $56.50; St. Louis (round trip), $52.50; St. Paul and Minneapolis (round trip), $45.00. These rates are by "direct lines" to Portland. If the trip is one way (going or returning) by way of San Francisco, add $11.00 to the above rates. Corresponding reductions have been made from points east and south of Chicago. Time limit on tickets will be 90 days.

Arrangements have been made for side trips for those who may desire them, at reduced rates, to Alaska, Japan and the Hawaiian Islands.

SOME NOTES ON RECENT PROGRESS IN THE SURGERY OF THE EAR AND BRAIN.*

By A. BARKAN, M. D., San Francisco.

THE region of the temporal bone is a common ground for the general surgeon and the surgeon-aurist. To the first belongs the merit of having dealt with pyogenic diseases of the brain, including those of otitic origin on broad lines, whilst the latter has made of otology, not half a century ago one of the most neglected and ill-famed of medical branches, a thoroughly scientific department of medicine, based on intelligent interpretation of acoustics, of bacteriology and of fundamental surgical principles. No excuse is, therefore, needed if I take the liberty of bringing a few data before you tonight; data which tend to show that the understanding of the importance which purulent ear disease bears to life, is making fair headway. In the main this very informal communication embraces personal experiences during my attendance of the British Medical Association meeting, July last, in Oxford, and last year's International Congress of Ear Surgeons in Bordeaux. In Oxford Professor Macewen delivered the general oration on surgery. It contained observations on some respiratory and cardiac reflexes induced by the peripheral impressions of the pudic nerve, a communication of importance to the surgeon who operates in the region of the anus and the region inervated by the pudic nerve. In another part of the oration Macewen treated upon the choice of snitable material for ligatures and sutures and the reqnirements of the living tissue relative to them. This part of his address relating to catgut, though well known to many of us from the teaching of the master, whilst amongst us some years ago, will bear renewed study in detail. The address may be found in the *British Medical Journal*, July 30th, 1904.

The part of his address which I desire to bring to your special notice dealt with localization of brain abscess arising from primary pyogenic cranial lesions, the determination of abscess versns meningitis and the results achieved in dealing surgically with tubercular meningitis. Some of these remarks are contained in his book, and have been mentioned in his course of Lane Lectures; others were gathered from him personally during a short holiday trip I had the privilege of enjoying in his company.

"In the great majority of cases in which abscess has formed from foci on the exterior of the skull, the abscess is in direct contiguity with the infected structures. Taking the ear as primary focus, temporo-sphenoidal abscess will develop through the tegmen of the antrum or of the tympanic cavity; cerebellar abscess will develop from the region of the sigmoid. The paths followed are generally easily tracable. Access to the abscess is facilitated by extension of the aperture already made in the mastoid. A rather important point made by Macewen is that *abscess* of the brain does not occur by pyogenic organisms traveling by way of the internal auditory meatus, for the whole length of the internal auditory canal separates and in a way protects the brain from the focus of pus in the middle ear, while leptomeningitis is set up in the canal, spreads along the membranes which ensheath the nerve and over the basal membranes. Collections of purulent matter frequently found in the meshes of the pia and arachnoid produce occasionally *softening* and *ulceration* of the surface, *but not abscess of the brain.*"

The most important feature of this part of the lecture is contained in Macewen's remarks on tuberculosis of the middle ear extending to the brain. He has recently observed ten cases of tuberculosis of the middle ear *without perforation of the membrani-tympani*, and in the majority of cases without swelling over the mastoid. Five of these, because of extensive involvement of the basal ganglia and of the cerebellar fossa, could not be further dealt with after radical operation of the mastoid had been performed, and succumbed to turbercular meningitis after various periods; and some lingered for months. In five other cases intracranial operations were performed. As the meningitis was unilateral it was hoped to be still localized and to have spread by way of the tegmen. That hope was not realized in two cases, numbers 6 and 7 of the series, though the latter patient, 7th, improved after operation and resumed work and lived in fair condition for three years with two meningeal attacks of short duration. He died in the fourth attack of typical basal tubercular meningitis. In the other three cases which came under observation at an earlier stage of the disease, the disease was confined to the basal membrane and lateral aspects of the temporo-sphenoid lobe and were dealt with successfully. The patients not only recovered from the operation but regained strength and vigor. One still holds a foremost place in a large public school.

Macewen advises to carefully watch these cases of tuberculosis of the middle ear, taking their course often insidiously, causing no rupture of the membrani-tympani and hardly any subjective symptoms. The possibility of curing favorable cases of limited and early detected tubercnlar meningitis as elicited by Macewen's statement opens np a new therapentic possibility and ought to keep ns ever on the alert. Tuberculosis of the middle ear often passes into the sigmoid sinus and disseminates disease through other parts of the body—lungs, epipbyses of bones and viscera.

Allow me now to snpplement these statements by some personal remarks made by Macewen to his traveling companions from Paris to Bordeaux, as taken from my note book. In part a repetition of his oration in Oxford.

Brain abscess nearly always develops by contact through an erosion at the base of the brain, not by pyemia. Meningitis will travel along the sheath of nerves in the internal meatus, but abscess does not form in that way, the cerebellum and medulla being protected by the length of the internal meatus.

Remarks on Thrombosis.— Primary thrombosis in the jugnlar bulb is very rare. Where thrombosis of the sinus occurs it is generally found in the knee. Open the sinus, clean thoroughly, follow in either direction if possible, clear out all of the thrombus. The thrombus is always septic if caused by pyogenic ear disease, and bound to soften *even if hard at first; then* tie tbe internal jugular. Always attend to the sinns first, wash out carefully, avoid pressnre, fold in the walls of the sinus, put boric-iodoform powder into the open sinus, sometimes rub in very carefully a few drops of pure carbolic acid until it shows white color; but one can do as well, and perhaps a little safer, with 1-20 carbolic solntion, drying it off carefully. Again he puts weight on *tying the jugular vein only when thrombus cannot be cleaned out from above.* After tying he has a few times cut out pieces of the jngular, but as a rule he satisfies himself with opening the jugular and filling it with boric-iodoform powder.

Propagation of pyogenic matter through cerebral veins and formation of abscess in remote parts of the brain does not occur. Macewen always follows the pyogenic tract *from the ear* into the brain (or from the sinus into the cerebellum), instead of trephining over the ear, though a counter opening may sometimes be required. The surgical proceeding in tubercular meningitis of otitic origin *consists in tying the vessels and cutting out the diseased membrane.* Again and again he called attention to the fact that the trouble often occurs without any objective symptoms, just a little sensitiveness to pressure, though, of course, meningeal symptoms may be present.

Statement referring to the Bordeaux International Congress of Ear Surgeons.—Of the several and general reports made at the Seventh International Congress of Otology in Bordeaux, the one on diagnosis and treatment of labyrinthian suppuration (Brieger, Von Stein and Dundas Grant) is of general interest. The labyrinth may be affected in each form of acute and chronic otitis media purulenta. It generally follows the type of the primary middle ear trouble, i. e., the same process may take place in the labyrinth as

*Communicated to Society of Eye, Ear and Throat Surgeons and Cooper Medical College Science Club in San Francisco.

in the middle ear during scarlatina otitis; cholsteotoma also invades the labyrinth as it does the middle ear.

Tubercular meningitis does not always spread to the labyrinth. If the vestibule becomes affected hearing may be preserved for some time. But in the progressive otorrhea after operative openiug of the vestibule, complete and lasting deafness generally results. Dizziness in different degrees is always present.

Various forms of nystagmus occur in lesions of the horizontal canal. Lumbar puucture may temporarily improve both dizziness and uystagmus. In most cases, even when the complex of characteristic symptoms is present, diagnosis is rendered possible only by exclusion; as, for example, if the labyrinthian symptoms do not pass away after radical operation on the mastoid, or if they first make their appearance after the operation. The sudden appearance of these symptoms in acute otorrhea renders the diagnosis much easier.

After radical operation the diagnosis is sometimes facilitated by the presence of fistulas, though discoloration of the semicircular canals does not always indicate the presence of pus. After opeuing the labyrinth the presence of pus is not so much indicated by the scanty amount of pus as from the presence of granulations. Purulent disease of the labyrinth may heal spontaneously, the cavities being filled with counective tissue and bone. The perilymphatic space and the arachnoidean space may be in direct communication without purulent meningitis necessarily resulting from labyrinthian affection, as the pia and arachnoid are quite resistant to purulent infection.

Tubercular labyrinthitis is amenable to partial or complete cure. As purulent labyrinthitis does not always cause purulent meningitis, so tubercular labyrinthitis does not always cause tubercular meningitis. Indications for opening the diseased labyrinth are not absolutely clear; more experience is needed.

Technique of Opening of Labyrinth.—Transform the hidden labyrinth empyema into an open suppurating cavity. The opening of the labyrinth must allow a comfortable removal of sequestra and cholesteatoma. The opening is generally made first through the horizontal canal; if in doing so vestibular suppuration is diagnosed, open the vestibule more extensively by excision of the stapes and enlarge the vestibular window. The opening of the semicircular canal alone is not sufficient to effectually drain the labyrinth into the middle ear. If labyrinthian symptoms still persist after the opening and if the functional examination shows more or less complete destruction in the cochlea, this must be opened by way of the promontory.

In cases where there is a deep extra-dural abscess present in the posterior wall of the petrous portion of the temporal bone and an abscess of the cerebellum, if their labyrinthian origin is recognized during the operation, the proper procedure is to open the vestibule from the rear, having removed the superior and inferior semicircular canals.

One must be careful not to injure the superior petrosal sinus and the jugular bulb in case the latter is situated high. One may use the gauge or the burr. Epinephrin proves very useful in reconnoitering the condition in the labyrinth wall, especially in the region of the fenestra. The post-operative treatment is the same as in radical operation. Light tamponing may be resorted to to keep the labyrinth cavity open if drainage be necessary.

Effects of the Operation.—Healing may be complete if the affection of the arachnoid is capable of retrogression. Occasionally one will get but a temporary relief of symptoms. Where healing is complete the trouble with equilibrium passes away slowly; later than the nystagmus. The hearing is lost either immediately after opening of the labyrinth or later.

Another report was given by Knapp on "How to Open and Care for an Abscess of the Cerebrum of Otitic Origin." Two ways to open: 1. Surgical way by trephine through the skull; and 2. Tbe aurist's way, following the pyogenic path from the ear (also Macewen's). To expose the cerebellum, cut along the posterior margin of the mastoid process up the knee of the sigmoid and prolong in the direction of the lateral sinus. Evacuate the pus completely; when the opening is made large enough pus will find its way out. A very useful instrument for examining the walls of tbe cavity is the encephaloscope of Whiting of New York. It is similar in shape and appearance to the aural speculum. No gauze or tampon is necessary if the opening gaps well. Cerebral hernia is apt to be encountered in the after treatment of these cases. If such occur, enlarge the original opening or make another in the temporal bone and incise any secondary abscess present.

The discussion was opened by Sir William Macewen, who mentioned first the old jocular saying of Syme, that there exist two kinds of aural disease—one treated by the aurist and not cured, and the other treated by the surgeon and cured. This saying, Macewen thought, is becoming untenable in the light of the work of aurists in the field of aural surgery. This applies particularly to the results of the treatment of endocranial complications. One of the reasons why operations for cerebral abscess often fail *is the overlooking of the tract which unites the cerebral abscess and the primary focus of pus in the ears;* beside opening the abscess and elimiuating the primary focus, one must also be certain to *eliminate the tract through which the disease has extended.* Do this incompletely and secondary abscess will form. To cite Macewen's words literally from my note book, "Take away either or both foci and leave a communicating tract and the result will be a *secondary* abscess; all communicating parts must be removed. We can cause mischief by interfering with the brain too much. Go into the brain directly. *Save all soldering adhesions* which protect the area beyond abscess. If none be present *make* adhesions; press carbolic acid 1:20 with tampon against the dura for 5 to 6 hours. Wait 24 hours if possible before entering from the ear into the brain. The wound is thus rendered asceptic." In 50 cases of abscess of the brain treated by Macewen, no difficulty was experienced with chloroform; it is much better than ether. In cases of large cerebellar abscess there may be difficulty. If the breathing stops, commence artificial respiration. Go down into the abscess at once without a general anesthetic. With regard to drainage he says: *"Do not drain;* washing out the cavity is dangerous, if you don't know how to wash it out. Be sure of free exit. Make free an opening into interior; take away sloughs; the endoscope will not help; the brain will fill up. Avoid irritation by draiuage tube; it may be thrown by pulsation against the walls of the brain. If drain you must, put in a bit of gauze. Take care of the mastoid vein if operating near the sinus; air may be admitted, as in a case of cerebellar abscess diagnosed and operated upon, death occuring during the operation. Autopsy showed the coronary arteries filled with air."

LERMOYEZ'S CONTRIBUTION TO SURGICAL TREATMENT OF ACUTE OTITIC MENINGITIS.

The communication which Professor Lermoyez made at the International Ear Congress in Bordeaux last summer regarding two cases of acute purulent meningitis secondary to otorrhea, cured by lumbar punctures, is contained in extenso in *"La Presse Medicale"* of the 22d of October, 1904; it is a very interesting article of which I desire to give you an epitome. In the ear, as well as around the nose, the bones are full of cavities. Mastoid cells, frontal, ethmoidal, sphenoidal sinus may contain pus which can easily find its way to the meningi, as do the streptococci from the fallopiau tubes to the peritoneum. As peri-

tonitis is generally engendered by the uterus so is meningitis generally engendered by the ear. Meningitis remained, up to a few years ago, the only complication of otitic disease which was generally recognized to be incurable. This is not the case any more. It would appear that nothing short of the beginning of the death agony should keep the surgeon from attempting to produce a cure. Again it is Macewen who has first opened and drained a case of suppurative leptomeningitis, curing the patient. The patients since then cured, eliminating cases of serous meningitis, are six or seven in number. Lermoyez adds two well observed cases to the others. In one, a young girl of 19 years, presented on the 22d of January, 1902, the following condition: Otorrhea on the left side for one year. There were present Kernig's symptom, stiffness of the neck, severe headache, vomiting and intense fever. Lumbar puncture was made. Under strong pressure a liquid containing 58 per hundred of lymphocytes and 40 per hundred of polynuclears was obtained. Radical mastoid operation was performed with complementary large craniotomy without encroaching upon the dura which, though covered with granulations, showed no fistula. The next day, temperature normal; two days after, Kernig's symptom disappeared; six days afterward a new lumbar puncture showed 99 per hundred of lymphocytes and 1 per hundred of polynuclears. One month from the date of entering the hospital the patient was discharged. Half a year later a small labyrinthian sequestrum was removed. Perfect healing subsequently. The other case was in a young girl of 18 with otorrhea since the age of 7. A subacute attack of mastoiditis following a cold in November, 1903. The radical operation was performed and the dura mater found intact. No other clinical symptoms of an encephalic order. All went apparently well for ten days afterwards, when an intense cephalalgia with vomiting occurred; temperature very high—39.2 degrees. Next morning lumbar puncture was made and an almost purulent liquid obtained, showing intense polynucleosis. It was decided to open and drain the meningi, as everything necessary had been done in the way of cleaning out the ear. The dura was exposed to a fairly large extent, largely excised and several punctures (clear in character) were made into the temporal lobe. Caries of the labyrinth was also discovered, showing the labyrinth again to be the bridge between the otitis and meningitis. The next day improvement commenced and kept up steadily, with two renewed lumbar punctures made in intervals of a few days. The recovery was not quite smooth, but about one and one-half months after the outbreak of the disease, all symptoms had disappeared. Here, also, later on, a labyrinthian sequestrum was removed. Lermoyez remarks, "It is fair to admit that considering the intensity of the symptoms in these two cases, they (the patients) would have succumbed without intervention. Had they fallen sick five years ago they would have offered us simply two ordinary autopsy cases. Instead of that they have recovered and taken up their life work; a success well worth rejoicing over." In his clear, systematic manner he recommends to observe four rules in dealing with these cases. First, to empty very extensively the petrous portion of the temporal bone; that is, to make the radical mastoid operation, exposing the dura without incising it. In case of doubt as to the presence of meningitis, lumbar puncture may be used as a diagnostic means. At the same time, at this stage is may be necessary to make an exploratory craniotomy. That has for its purpose, to explore the endo-cranium and to evacuate any extra-dural abscess which may be overlooked by the coexisting meningitis. Then the craniotomy serves the purpose of "decompression," i. e., relieving any existing pressure. Except the very rare cases where abscess may be together with meningitis and where the abscess must at once be opened; in clean cases of this kind the dura should not be opened the same day. Same cases have been observed where the radical operation, together with the craniotomy, are sufficient to effect cure. The second rule Lermoyez puts down is to incise the dura in order to penetrate into the subarachnoid space. This serious step will only be taken in two instances; first, if the primary procedure has been useless; second, when meningitis breaks out in a patient who has already undergone radical operation and craniotomy, as in his own second case. As a rule, 48 hours should elapse between carrying out the first and the second rule. At this time, then, two things are to be done. A large crucial incision of the dura and explorative puncture of the temporal lobe, in themselves inoffensive if done properly. The purpose of this procedure being to empty the lateral ventricles in case they should be distended and open up any latent cerebral abscess. The third rule is to make a repeated lumbar puncture. The liquid must be abundantly removed at least 15 c. c. m. at once and must be frequently repeated. Fourth step: "Be careful of the labyrinth." The labyrinth is the most frequent route along which the infection travels from the ear to the meningi; hence caries of the labyrinth is a frequent complication of otitic meningitis, as shown in the two cases which Lermoyez records. It is better, then, to act as he has; to abstain from trephining the labyrinth even if it shows necrosis in the depth of the wound and to await its spontaneous elimination and natural cure.

Lermoyez's article, clear cut and important in itself, brings forward an almost entirely new chapter of otitic and cerebral therapeutics, and will require time, research and experience to put it on a solid basis.

THE USE OF BENZOYLVINYL-DIACETONE-ALKAMINE (BETA-EUCAIN) LACTATE IN EYE, EAR, NOSE AND THROAT WORK.*

By H. BERT. ELLIS, M. D., Los Angeles.

WITHIN a comparatively short time there has been placed upon the market an exceedingly soluble salt of eucain, beta-eucain lactate. I have used this local anesthetic exclusively for the past three or four months, and with general satisfaction. Some eight or nine years ago I had two or three patients collapse from the local application of comparatively weak solutions of cocain hydrochlorat. One of the patients came so close to the border land of the great unknown that I was thoroughly frightened, and since that time I have not used cocain in any of my nose and throat work.

About nine years ago alpha-eucain was placed upon the market, and I adopted its use. Since then I have used it, or beta-eucain hydrochlorat, exclusively, and during these nine years I have seen no systemic effects due to their administration, and have never heard of or seen anything approaching a "eucain habit."

Cocain is freely soluble, anesthetises mucous membranes quickly and thoroughly, but causes an ischemia and shrinking of the mucous membrane. None of the eucain preparations produce either the shrinkage or ischemia, but they do give results in the way of local anesthesia; and they are only to a moderate degree toxic; the alpha in particular and the beta to a moderate extent, congest mucous membranes.

The chief difficulty with the alpha- and beta-eucain preparations is, however, that they are only sparingly soluble in water at a temperature of 60° to 90°, beta-eucain being 3½ per cent soluble and alpha about 4 per cent. With solutions of these strengths it is sometimes necessary to use a considerable quantity, frequently repeated over a period of 15 to 30 minutes to produce anything like a satisfactory anesthesia for nose and throat work. Whenever in such work it is desirable to shrink the tissues and make them blood-

*Read before the Los Angeles Eye, Ear, Nose and Throat Society, February, 1905.

less, it is only necessary after using a solution of the eucain salts to use a solution of epinephrin, and this solution, in fact, adds to the analgesic effect of the eucain.

My experience with solutions of eucain in ophthalmic work was not at all satisfactory. The installations of these solutions into the conjunctival sac produced both pain and hyperemia, the pain usually quickly subsided, but the hyperemia sometimes remained for hours. These have been common experiences, and led the manufacturers to seek a more soluble and less irritating salt of beta-eucain, and they have succeeded. The new salt, the lactate of beta-eucain, I have been experimenting with for the past three or four months. It is a white hydroscopic powder which is freely soluble in water to about 25 per cent, and in alcohol to 13 per cent. It is slightly alkaline and contains a trifle less eucain than the beta-eucain hydrochlorat, 119 parts of the former equaling 100 of the latter. The solution is intensely bitter to the taste, and when applied to the mucous membrane of the nose or throat, it produces a sharp burning sensation, which quickly passes away, without any hyperemia, anemia or shrinkage, and leaves only an anesthetized area.

On account of the fact that the lactate contains slightly less eucain than the hydrochlorat, stronger solutions should be used, for nose and throat work 10 to 15 per cent, and for eye work 2 to 5 per cent. I have been using 12 per cent solutions of the lactate to anesthetize the mucous membrane in making diagnoses of nose, throat and ear troubles. They do not disturb the circulation or shrink the tissues so that you may see them and feel them with your probe while in their natural condition. For removing portions of the turbinated bodies I use a tampon of cotton saturated with 12 per cent solution of the lactate, allow it to remain 5 minutes, replace it with another, allow it to remain 5 minutes; when, ordinarily, the parts are ready for operation.

When spurs of the septum are to be removed, after using the lactate as above, put in a tampon saturated in 1-1000 epinephrin solution, so that the tissues will be shrunken as much as possible. Epinephrin may be used in combination with the lactate when operating on the middle turbinated bodies or the ethymoidal cells.

A 5 per cent solution of the lactate of beta-eucain, when dropped into the conjunctival sac, causes a more decided smarting than does a 4 per cent solution of cocain, but it causes neither hyperemia nor anemia, and it has the decided advantage of cocain in that it in no way disturbs vision, having neither cycloplegic nor mydriatic action, while the anesthetic effect is excellent and quite equal to that produced by a 4 or 5 per cent solution of cocain, although you have to wait a little longer for the anesthesia, and it produces no lesion of the cornea.

For infiltration anesthesia the following prescription will produce anesthesia in the course of 30 minutes, which will last 3 or 4 hours, and that too without any depressing effects, even though twice the quantity may have been injected:

R	Lactate of beta-eucain	gr. 4
	Sodium chloride C. P.	gr. 12
	Sol. epinephrin (1-1000)	m 10
	Distilled water	ʒ 3½
M	Inject ½ for ordinary operation.	

When we consider the facts narrated before, why should we longer use cocain solutions in operations upon the eye, nose or throat?

1. We have all seen the stimulating effects of cocain; some of us have seen the syncopy and other particularly distressing symptoms following its use in patients on whom we have used the same strength solution, and in as great a quantity, on previous occasions; some have had the misfortune to have patients die from the effect of weak solutions applied to the urethra or nasal mucous membrane.

2. We all know by reading, and probably most of us by personal knowledge, of the frightful "cocain habit," and this habit is altogether too frequently the result of using cocain solutions in the nose for operations and colds in the head.

3. Cocain produces temporary ischemia and shrinkage of mucous tissue, which many claim favors secondary hemorrhage after operations.

4. There are many occasions when these conditions are not desirable; when they are wished for they may be produced to a greater extent by other and less harmful means.

5. Cocain, when used in the conjunctival sac, dilates the pupil to a greater or less extent and interferes more or less with vision, in addition to its anesthetic, ischemic and shrinking qualities, besides sometimes causing corneal lesions.

1. Beta-eucain, hydrochlorat and beta-eucain lactate in particular, are only moderately toxic, the hydrochlorat being 3½ times less toxic than cocain, and they have but very slight systemic effects. I have not noted in medical literature a single death, or, in fact, any serious or alarming symptoms following and resulting from their use, as they do not affect the heart.

2. There have been no cases reported of a "eucain habit" having been contracted by any one on whom the solutions have been used, although eucain has been in use nearly ten years.

3. Beta-eucain lactate neither produces hyperemia nor ischemia, and does not shrink the tissues; so of itself it is not likely to favor secondary hemorrhage.

4. When a bloodless and shrunken condition of a local mucous membrane is desirable it may be obtained by the local application of a solution of epinephrin by itself or in combination with a solution of the lactate of beta-eucain.

5. When a 5 per cent solution of beta-eucain lactate is dropped into the conjunctival sac, after the first temporary smarting is over (and this is considerably greater than that following the instillation of a 4 or 5 per cent solution of cocain), you have only an anesthetic effect. The pupil is not enlarged, there is no interference with accommodation, the conjunctiva is neither congested nor blanched, none of the tissues are contracted and the cornea remains intact.

Beta-eucain lactate solutions are permanent, undergoing no change by boiling, so that no difficulty is encountered in keeping them sterile.

A CASE OF PRIMARY CARCINOMA OF THE LUNG.*

By HENRY HERBERT, M. D., Los Angeles.

Pathological report by E. L. Leonard, M. D., Los Angeles.

THE history of the case is, in brief, as follows: Mrs. H., 53 years of age, German, married 24 years, had 5 children. Father died of unknown cause, mother from cancer of the stomach at the age of 59. Her parents had 11 children; one a sister, died from cancer, a brother from phthisis, another brother died from cause unknown to her. Husband and children are living and healthy. Menstruation ceased at 50. Previous to her present illness patient was suffering for many years from bronchitis and laryngitis, as she claims.

November 22, 1903, Patient became suddenly sick with a so-called "cold," and suffered a great deal of pain in the left side of the chest; one month later hemoptysis set in, pain ceased, only to reappear in January, 1904, with fever and recurrent hemorrhages. At that stage of the disease the case was diagnosed as phthisis, and the patient was sent to California, and thereafter was in the care of Dr. C. Dietsch, of Los Angeles.

In March, 1904, Dr. Dietsch found on examination an absolute dullness over the upper lobe of the left lung; patient had fever, slight dyspnea, some pain in left side of thorax, no hemoptysis. Gradually cough and expectoration increased, patient complained of severe pain in left scapular and interscapular region. Bacteriological examination of sputum in April did not reveal the presence of tubercle bacilli, or of elastic fibres; fever and dyspnea much decreased, but pain became more severe.

Dr. Dietsch suspecting at that time a syphilitic infiltration of the lung, employed mercury and potassium iodid from April 10th to 25th, but without any result or benefit.

*Read before the Los Angeles County Medical Association, December, 1904.

During May and June there was continuous expectoration of blood, the sputum having a peculiar gelatinous, viscid consistency, dark red, currant or raspberry jelly-like with a rather violet or bluish hue. Dr. Dietsch suspecting a malignant tumor called me in consultation, and June 13th careful examination revealed the following condition:

Status presens: Objective symptoms. Patient was confined to bed, but able to walk around more or less; of small stature with small frame, dark complexion, anemic, with brownish or yellowish tint of skin, cheeks slightly flushed, morbid expression of face, greatly emaciated muscles atrophic, mucous membranes anemic, fingers slightly club-shaped, nails cyanotic and curved. Thorax in dimensions and shape of normal appearance, also both mammæ, no retractions or grooves visible. Respiratory movement of left side markedly retarded, in upper region not present at all. Above sternal end of left clavicula, just above the jugular fossa, one large cervical gland to be felt; another one also in left axilla.

Pulse 96. Respiration 15. Temperature normal. Palpation and percussion of right lung anteriorly and in right axilla gave normal resonance. In left lung anteriorly, dullness from apex down to arch of ribs, also in axilla; apex and infraclavicular space absolutely dull or flat, whereas resonance below was greatly impaired; slight respiratory movement of lung was noticed anteriorly and in axilla.

In left lung, posterior, absolute dullness from apex down to about fourth or fifth dorsal vertebra, sound improving downward with very slight respiratory movement of lung. Right side showed normal condition. Tactile fremitus absent on left side.

Auscultation of right lung anterior with the exception of a few fine crepitant râles at the base, showed normal vesicular breathing. In left lung anteriorly and in axilla there was diminished vesicular breathing throughout, semibronchial and in some parts bronchial breathing was present in apex and first interspace; in upper region no râles whatever; very few in lower lobe. Posteriorly, the same type of breathing was noticed down to the middle of the scapula, which improved below, many dry diffuse râles were heard in the lower lobe. Vocal fremitus and whisper-voice on left side not increased, rather diminished. In right lung, posterior, a few crepitant râles at the base, otherwise normal. The 5th dorsal vertebra painful on pressure. Abdomen: Walls flabby, otherwise normal.

Subjective symptoms. Intense radiating pain in upper region of left thorax, in shoulder, axilla and in arm down to elbow region; pain on pressure or even touch in suprascapular region and axilla.

Exploratory puncture between 4th and 5th rib posteriorly did not reveal fluid. Microscopical examination of sputum as regards tubercle bacilli, or carcinoma particles proved negative.

From the foregoing history of the case and symptoms conclusion was reached: The occurrence of cancer in the family, the age of the patient, the unusual course of disease, its insidious development, the rather cachectic and not phthisical appearance, the presence of enlarged glands, the characteristic sputum, the intense dullness with absence of increased vocal fremitus and whisper-voice; the absence of fever, rigidity of chest walls, the *slow* respiration, the exclusion of syphilis and encapsulated empyema, the intense radiating pain, warranted fully the diagnosis of carcinoma of the lung.

The subsequent history, the X-ray picture, taken by Dr. A. Soiland, verified only the diagnosis; and, I may add that some time previous to her death there was noticed a distinct bulging upward of the left apex, a fact which alone speaks for neoplasm and against any other pulmonary disease.

Death occurred September 11, 1904, the disease thus lasting probably 10 to 15 months.

Autopsy Report, by E. L. Leonard, M. D.—The body was that of a small, somewhat emaciated woman about sixty years old. Heart was small and somewhat flabby, valves normal. The left lung was firmly adherent to the parietal pleura by dense adhesions. In the supraclavicular fossa a hard tumor mass was seen filling the fossa. This could be distinctly felt by palpation. It was firmly adherent to the first and second ribs posteriorly and to the clavicle anteriorly. The adhesions were broken away with difficulty, and in places the lung tissue was torn into. Both upper and lower lobes were completely consolidated, and no normal lung tissue was visible. On section the surface appeared gray in color and was very soft and friable. Large areas showed a hemorrhagic condition, while other areas showed consolidation resembling gray hepatization. In the right lung no pleura adhesions were present and a large part of the lung tissue was crepitant. Many hard nodular masses were felt varying in size from ¼ to 1 inch in diameter, of a grayish white color.

The liver showed a fatty infiltration with cloudy swelling. No metastases could be discovered. The pylorus and mucous membrane of the stomach was normal and the intestinal mucosa showed no evidence of metastases. No enlarged mesenteric glands could be found.

The kidneys were of normal consistency and the striations normal. Two very small white nodules were found in the left kidney about ⅛ inch in diameter and situated on the periphery of the organ. No nodules were found on the right kidney.

The uterus and ovaries were somewhat atrophic. No tumor could be discovered. The cervix and uterine mucosa were normal. Both ovaries contained a few cysts and were atrophic, otherwise normal in appearance.

The histological findings showed a carcinoma of the lung of the cylindrical cell variety. In the less cellular portions of the tumor in the left lung the alveolar structure of the specimen is well marked, the air vesicles lined with atypical proliferating cells, which in some areas filled the lumen of the alveolus.

The metastatic tumors in the right lung were of the same cylindrical cell variety. The liver showed cloudy swelling and slightly fatty infiltration, hut otherwise was normal.

The small nodules on the left kidney proved to be metastatic growths of the same general character as the original tumor in the left lung.

Pathological Diagnosis.—Primary cylindrical cell carcinoma of the left lung with metastases in the right lung and left kidney.

To illustrate the rarity of this disease, I may cite that Reinhard, according to Loomis *(Med. Rec.*, Aug. 1895*)* found only 27 cases in the literature of this country and Europe; of those, 18 were in the right, 9 in the left lung. One year later Dr. Wolf has published a record of 31 cases of primary carcinoma of the lungs in the Dresden City Hospital from 1885 to 1895. The percentage of the death rate according to his statistics was 0.428 (*Med. Rec.*, May, 1896).

Benda gives in the latest issue of the *Zeitschrift für Krebsforschung* the death rate due to cancer of lung as 4:1000, or 4 per cent of all cancer deaths. In 1900 this proportion of 4:1000 rose to 12:1000, and I believe this increase is rather due to improved diagnostic means than to an increase of the disease.

The diagnostic value of the sputum is very problematic, although most of the old and even new text books lay great stress upon its typical character. Wolf found cancer particles in the sputum only once in 31 cases, and Dr. Betschard (*Med. Rec.* May, 1896) claims that only one case has been recorded of a diagnosis of cancer of the lungs by the sputum.

To Grunsky—Verb Active.

Years ago one Captain Boycott, an Irish landlord, was ostracized by the land league, so that it became impossible for him to buy from, sell to, or to have any dealings whatever with his neighbors. Captain Boycott's name is now a legitimate English verb (to boycott); and may, we believe, be found in recent dictionaries.

Those who have read Dr. C. A. L. Reed's damning indictment of the Panama Canal Commission, "more especially Mr. Grunsky," in the *Journal of the American Medical Association* for March 11th, will realize the appropriateness of the perpetuation of Mr. Grunsky's name in a manner similar to that which overtook Captain Boycott's, to wit: To grunsky, *v. a.*, to obstruct with petty, and insensate officiousness; to harass competent officials with puerile, vexatious, and impracticable restrictions, thus rendering their work alike nugatory and costly.—*St. Louis Med. Review.*

Dr. Luther M. Leisenring of Placerville, was married to Miss Ethel G. Wilcox on April 26th at Omaha.

MINUTES OF THE THIRTY-FIFTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

Riverside, April 18, 19, 20, 1905.

The session just held was one which will long be remembered by those who attended it. The registration was the largest recorded for a number of years, 230 having signed the register. The physicians of Riverside County Society had made excellent arrangements in advance, and their zeal was manifested not only in the satisfactory manner in which meeting places were provided, but also in securing the comfort and entertainment of those in attendance.

The full minutes of the meeting are here published as taken from the notes of the Secretary and Assistant Secretaries. It is to be noted that the business of the Society was all transacted in two sessions of the House of Delegates, and that these sessions were not long nor arduous.

The Board of Examiners, reporting through three members present, showed very good work done, and it was manifest from the spontaneous applause, as well as from the result of the election, that an overwhelming majority of the members of the Society were well satisfied with the work of the board.

SCIENTIFIC SESSIONS.

Tuesday, April 18th.

The first general session was called to order at 10:20 A. M. by Dr. Frank Adams, the President. Dr. W. W. Roblee, President of the Riverside County Society, delivered an address of welcome, and in a hearty manner offered all the courtesies of Riverside to the members in attendance.

Without further preface, the scientific work began and the Symposium on "Typhoid Fever" was opened by Dr. C. M. Cooper, who discussed the Diagnosis.

Dr. E. W. Twitchell not being present, his paper was passed for the time, and the paper of Dr. F. C. E. Mattison, on "Immediate Surgery, or that Necessitated by Perforation," was read.

Discussion on this paper was opened by Dr. Claire W. Murphy, of Los Angeles, who went more into the details of the symptoms of perforation and the conditions which maintain at the time. Pain, rigidity, tenderness, shock and increased pulse rate should be diagnostic; better to operate when there is no perforation than to fail to do so when there is perforation. Rapidity is of the greatest importance in operating for the repair of perforation.

"The Treatment," by Dr. Ray L. Wilbur, was read by the author.

Dr. P. C. H. Pahl read a short paper on the remote effects and surgery of bones as a complication of typhoid fever.

Dr. Wm. Fitch Cheney, in general discussion of the subject, cited some very interesting cases. In one patient the symptoms were quite diagnostic of perforation and the patient was subjected to operation, but no perforation was found. He emphatically endorsed the statement of Dr. Wilbur that no drugs were of any particular value, a good nurse, good milk and good water, are the essential things in the treatment.

Dr. W. E. Bates presented a short additional discussion of the major points in the treatment, and laid particular stress upon the details which are vitally essential.

Dr. S. J. Hunkin announced that there was a slight error in the title of his paper as given in the program; his subject was "Typhoid Involvement of the Hip Joint."

The Chairman of the Committee on Arrangements made an announcement in regard to the entertainment features that had been arranged and particularly to the entertainment of the ladies.

Dr. Geo. B. Rowell then read a paper on "The Accessory Treatment."

The general discussion being called for, Dr. C. G. Kenyon said that he was particularly pleased with the moderate and conservative treatment recommended. He referred to the uselessness of attempting to find a specific remedy for typhoid fever, and spoke of the harm being done by using secret and proprietary remedies and by mentioning them before a Society meeting.

Dr. Ray L. Wilbur said that he had noted involvement of the elbow joint

Dr. Lockwood said the mortality was large and many deaths were due to perforation; it is difficult to explain why so few operations are performed.

Dr. Emmet Rixford mentioned four cases in which perforation had occurred; the patients were not operated on within 24 hours and all died. Early diagnosis is essential.

Dr. R. F. Rooney referred to the value of the nurse and thought no disease required a good nurse more than typhoid. If the physician depends on secret remedies, he will be unsuccessful. He had seen two patients who died, he thought, from phenacetin.

Dr. W. J. G. Dawson said the papers showed that the treatment today was the same as that of 37 years ago; diet and good nursing are the essential things.

Dr. F. C E. Mattison referred to operations, some reports showing over 40% of recoveries, which is most encouraging. Osler says 33 1-3% of deaths from typhoid are due to perforation. We should make the diagnosis early and then operate.

Dr. Geo. H. Evans said he felt sure the mortality rate in California and in family practice, is very low—much lower than in the East.

Dr. Geo. Ivancovich thought farinaceous foods mixed with milk and properly prepared, very valuable.

Dr. Wilbur said he believed in operation if sure of perforation, but pain is an uncertain and unreliable symptom. We generally find pain present, and also many other symptoms of perforation. Manipulation may cause an ulcer to perforate. Perforation may often be due to surgeon's examination.

Dr. J. Rosenstirn reported a case of perforation in ambulatory typhoid.

The President announced the appointment of a Committee on Credentials, composed of the following members: Drs. H. Bert. Ellis, T. C. Edwards and George H. Evans. The general session then adjourned.

Tuesday Afternoon.

SECTION ON GENITOURINARY AND SKIN DISEASES.

Dr. Lucas, Vice-President, in the chair.

Dr. George E. Abbott telegraphed that he could not be present, so his paper, the first on the program, was passed.

Dr. Alexander C. Garceau read a paper on "Erythema Keratodes," which was discussed by Drs. D. W. Montgomery, W. Lehman, Martin Regensburger, A. B. Grosse and M. Krotoszyner.

Dr. D. W. Montgomery read a paper on "The Conveyance of Syphilis by Medical Men," which was discussed by Drs. A. B. Grosse, M. Regensburger and Ralph Williams.

Dr. A. B. Grosse read a paper on "The Uses and Abuses of the X-Ray." Dr. W. Lehman read a paper on "Indications for Roentgen Therapy," and the two papers were discussed by Drs. A. Soiland, D. Montgomery, C. M. Cooper, S. J. Hunkin and F. B. Carpenter.

Dr. M. Krotoszyner read a paper on "Practical Application of Functional Diagnosis in Unilateral Kidney Lesions," which was discussed by Drs. Dudley Tait, W. P. Willard, Ralph Williams and Charles D. Lockwood.

SECTION ON MEDICINE, PEDIATRICS AND OBSTETRICS.

Dr. Geo. H. Kress read a paper entitled "Is Pulmonary Tuberculosis a Menace to the Health of Los Angeles?" This was discussed by Dr. C. C. Browning.

Dr. Woods Hutchinson, of Portland, Oregon, read a paper on "The Heart in Tuberculosis."

Dr. A. B. Cowan read a paper on "The Difficulties Attending the Artificial Feeding of Infants," which was discussed by Dr. Wm. Fitch Cheney.

Dr. H. S. Gordon read a paper on "The Adams-Stokes Syndrome with Report of Two Cases," which was discussed by Dr. Woods Hutchinson.

Dr. J. M. Hurley, of San Bernardino, invited any members who cared to do so, to come to San Bernardino where they would be met by teams and driven about the country.

Dr. Herbert Gunn read a paper on "Uncinariasis in California" and presented specimens. A recess of 5 minutes was taken to examine the specimens and when the meeting was again called to order the paper was discussed by Drs. Geo. H. Evans, Stanley Black and Geo. Ebright.

Dr. W. F. Cheney read a paper on "Human Glanders in California," and reported a case. His paper was discussed by Dr. Stanley Black.

Dr. R. F. Rooney read a paper on "Poisoning by Ceonothus Velutinus."

Dr. R. E. Bering read a paper on "Treatment for Morphin Habit by Hyoscin Hydrobromat," which was discussed by Drs. T. C. Edwards, H. S. Gordon, Stanley Stillman and George Cole.

The session adjourned at 5 P. M.

Wednesday, April 19th.

SECOND GENERAL SESSION.

The session was called to order at 9:30 A. M. by the Vice-President, the President read his address.

Dr. F. M. Pottenger read the report of the Tuberculosis Committee, which was discussed by Drs. Geo. H. Evans, Norman Bridge, and E. Von Adelung.

Dr. N. K. Foster read a paper on the "State Board of Health," which was discussed by Drs. H. A. L. Ryfkogel, J. Rosenstirn, E. Von Adelung and W. I. Terry.

Drs. Dudley Tait and Lincoln Cothran presented papers dealing, in the one case with the practical work of the board under the law, and in the other with Standards for Medical Education. These papers were discussed together by Drs. J. Rosenstirn, Walter Lindley, Stanley Black, Jno. C. King, T. W. Huntington, Norman Bridge and Dudley Tait.

The session adjourned at 12:04 P. M., 145 in attendance.

Thursday Morning, April 20th.

THIRD GENERAL SESSION.

The session was called to order at 9:25 A. M. by the President, and Dr. H. C. Moffitt began the Symposium on Diseases of the Gallbladder with a paper on "Diagnosis." Dr. C. M. Cooper presented the special discussion on this subject.

Dr. Ernest B. Hoag treated of the Pathology and his subject was discussed by Dr. H. A. L. Ryfkogel.

Dr. Dudley Tait read the paper by Dr. A. J. Lartigau on "Experimental Studies on Gallbladder Infection," which was discussed by Dr. Stanley Black.

Dr. Emmet Rixford read a paper on "The Surgical Treatment of Gall-Stones," which was discussed by Drs. Moffitt, Huntington and Tait.

A. S. Lobingier read a paper on "The Surgical Treatment of Conditions Other than Those Due to Gall-Stones," which was discussed by Drs. Stanley Stillman, Woods Hutchinson and H. C. Moffitt.

Dr. R. F. Rooney, the newely elected President, was then escorted to the chair by Drs. F. B. Carpenter and George H. Evans. After some very cordial words of thanks from Dr. Rooney, the session adjourned.

Thursday Afternoon.

SECTION ON SURGERY AND GYNECOLOGY.

Dr. Geo. N. Drysdale read a paper on "The Treatment of Compound Fractures," which was discussed by Drs. T. W. Huntington, Stanley Stillman and A. W. Morton.

Dr. F. R. Burnham read a paper on "Adolescence in Girls," which was discussed by Drs. Mary Baker, R. L. Wilbur and F. M. Pottenger.

Dr. Rose T. Bullard read a paper on "When to Operate for Fibroid Tumors of the Uterus," which was discussed by Drs. W. F. B. Wakefield and W. I. Terry.

Dr. Raymond Russ presented "A New Interdental Splint for Fractures of the Lower Jaw," and his remarks were generally discussed.

Dr. F. O. Witherbee made a "Plea for a More Simple Technic in Herniotomy," and his paper was discussed by Drs. W. I. Terry, A. W. Morton, Le Moyne Wills and W. E. Bates.

Dr. A. M. Henderson read a paper on "Multiple Tenotomy for the Relief of Spastic Paralysis," and his paper was discussed by Dr. Elbert Wing.

Dr. A. W. Morton demonstrated an operation for the Radical Cure of Umbilical Hernia, and his remarks were discussed by Drs. Le Moyne Wills and Emmet Rixford.

Dr. Z. T. Malaby read a paper on "The Surgical Treatment of Bright's Disease," which was discussed by Dr. Elbert Wing.

The session then adjourned.

SECTION ON DISEASES OF THE EYE, EAR, NOSE AND THROAT.

Dr. F. D. Bullard read a paper on "Skiascopy," which was discussed by Drs. William A. Cundy, T. J. McCoy and William H. Roberts.

Dr. R. L. Doig read a paper on "Adenoids from the Standpoint of the Parent and the General Practitioner," which was discussed by Drs. M. W. Fredrick, Geo. J. Lund, R. W. Miller, A. L. Kelsey, T. J. McCoy and Fred Baker.

Dr. Hill Hastings read a paper on "Cerebral Abscess Following Acute Suppurative Otitis Media with Mastoiditis," which was discussed by Dr. Cullen F. Welty.

Dr. Cullen F. Welty read a paper on "Chronic Otitis Media in Its Relation to other Diseases of the Ear, and the Operative Treatment," which was discussed by Drs. A. L. Kelsey, Barton J. Powell, Hill Hastings and A. W. Morton.

The session then adjourned.

MINUTES OF THE HOUSE OF DELEGATES.

FIRST SESSION.

The first session of the House of Delegates was called to order at 8:25 P. M., April 17th, by the President. Roll call showed 51 Delegates present.

The report of the President was called for, and the President stated that he had no report other than the address which he would read at the second general session.

The Secretary's report was read and on motion referred to a special committee of 5. The President appointed on this committee Drs. Terry, Somers, Moffitt, Thomas and Cooper.

The report of the Council was presented by Dr. C. G. Kenyon and referred to the same committee.

The report of the Editor and Publication Committee was read and referred to the same committee.

The report of the Treasurer was presented on March 31st in the form of the bank balance.

The Committee on Scientific Work made no report.

The Committee on Public Policy and Legislation reported verbally by its Chairman, Dr. F. B. Carpenter.

There were no reports from the Committees on Arrangements and on Education.

Committee on Vital Statistics filed a written report after the session adjourned.

The amendments to the Constitution introduced at the 34th meeting were adopted, so that Article VI reads as follows:

ARTICLE VI.

OFFICERS.

Sec. 2. The officers, except the Treasurer and the Councilors, shall be elected annually. The terms of the elected Councilors shall be for three years, those first elected serving one, two and three years, as may be arranged.

Sec. 3. No Delegate shall be eligible to any office named in the preceding section, except that of

Councilor, and no person shall be elected to any such office who has not been a member of the Society for the past two years.

Sec. 4. The selection of the place of meeting, and the election of officers, shall be the first order of business of the House of Delegates at the second evening session of each annual meeting.

Sec. 5. All officers shall be elected by ballot, and shall serve until their successors are chosen and qualified.

On motion of Dr. Parkinson, the Secretary was instructed to add the name of Dr. Cluness to the roster of Sacramento County and to accept $2.00, the amount of the assessment for one additional member.

On motion of Dr. Parkiuson the Secretary was iustructed to charge $2.00 to profit and loss and to credit the same amount to San Luis Obispo County.

On motion, the Delegates from Sacramento and San Luis Obispo Counties were declared regularly seated.

The question of the rulings prayed for was referred to the special committee of 5.

On motion, the Secretary was instructed to charge the delinquent account of Dr. Callandreau to profit and loss, and to carry on the books the names of the other delinquent members, said names to be reported each year till delinquency is relieved.

Ou motion, the House of Delegates adjourned at 9:50 P. M., to meet at 8 P. M. on the 19th.

SECOND SESSION.

Called to order at 8:25 P. M. by the President. On roll call 64 Delegates, officers and Councilors were noted present.

The minutes of the first session were read and approved as read.

The proposed amendments to the By-Laws were read and adopted seriatim, as follows:

By-Laws, Article I, Section 3, to read as follows:

It shall be the duty of the Secretary of each component society to furnish the Secretary of this Society before the first day of February of each year, a list of all members in good standing (with addresses) on the first day of January of such year.

Article IV, Sec. 4. Strike out the words "twenty-five dollars," in the 4th sentence, and insert in lieu thereof the words "two hundred dollars ($200.00)," and in the same sentence strike out the words "or business manager of the publication office."

Article VI, Sec. 2. Strike out the last sentence.

Article VIII, Sec. 13. Add to this section, after the words "House of Delegates," the following: "during the annual session of that year, nor thereafter."

Article X; add 2 new sections as follows:

Sec. 4. The fiscal year of the Society shall be from January 1st to December 31st and all books and accounts shall be balanced and closed on the 31st day of December.

Sec. 5. For the purpose of determining the amount of the assessment upon each component society for the fiscal year, the Secretary of each component society shall file with the Secretary of the State Society, on or before the first day of February of each year, a statement of the number of members in good standing on the first day of January of such year, as provided in Article I, Sec. 3.

The special committee of 5, Dr. W. I. Terry, Chairman, reported through the chairman and the recommendations of the committee were adopted seriatim, as follows:

1st. It is recommended that component societies be requested to take up the question of compulsory notification of tuberculosis, for the purpose of thoroughly discussing the subject and suggesting the best method of making this effective and indicating the class of cases that should be notifiable.

2nd. It is recommended that component societies be requested to elect their officers and delegates in December or January of each year.

3rd. Homeopathic or Eclectic physicians who are active members of homeopathic or eclectic societies are not, under such circumstances, eligible for membership in component societies of the Medical Society of the State of California.

4th. The question of lodge or contract practice, on recommendation, was referred to the Couucil to report at the next aunual meeting.

5th. The Council is authorized to borrow the sum of $2,000.00 for 3 years for the purpose of paying iu cash instead of deferring payments on such amounts as fall due from time to time. (The committee believed that this amount could be repaid by the increased earnings of the JOURNAL; but should this not materialize provision cau be made for its repayment by an increase in the assessment for one or two years as the House of Delegates may determine.)

6th. It is recommended that the Council increase the salary of the Editor by $600.00 per annum wheuever in its judgment this increase can be paid.

On motion, the report as a hole was adopted.

San Francisco and Del Monte were nominated as places for the next meeting, and a ballot being taken, San Francisco received 32 votes and Del Monte 31. San Francisco was therefore declared the place for the next meeting.

Dr. R. F. Rooney of Auburn was nomiuated for President by Dr. Thos. W. Huntington. There being no other nominations, the Secretary was, on motion, instructed to cast the ballot of the Society for Dr. Roouey, who was then declared elected.

The following officers were then elected:

1st Vice-President, Dr. W. W. Roblee, of Riverside; 2nd Vice-President, Dr. A. B. Cowan, of Fresno; Secretary, Dr. Philip Mills Jones, of San Fraucisco; Assistant Secretaries, Drs. H. P. Hill and Walter Hewlett.

Councilors: 5th District, J. L. Asay; 7th District, E. N. Ewer; 9th District, A. H. Mays; At Large, A. B. Grosse; 4th District, unexpired term, term expires 1906, George H. Aiken.

Dr. W. S. Thorne was, on motion, given the privileges of the floor and thanked the Society for having elected him in many past years to serve on the Board of Examiners. He was of the opiniou that he had fulfilled his obligations to the Society aud begged to be excused from further service on the Board.

On motion, a vote of thanks was extended to Dr. Thorne for his very efficient services.

The following were nominated for service on the Board of Medical Examiners and received the votes indicated: A. L. Cothran (34); Jno. C. King (34); G. F. Reinhardt (33); Dudley Tait (47); F. B. Carpenter (28); Ray L. Wilbur (24).

The President announced that the Society had elected Drs. Cothran, King, Reinhardt, Tait and Carpenter to serve on the Board of Examiners for the next year.

The following alternates were then elected: Drs. G. E. Abbott, Ray L. Wilbur and A. M. Henderson.

The following delegates to the American Medical Association were elected to serve for two years: Drs. Philip Mills Jones and H. C. Moffitt. The following alternates were elected: Drs. O. D. Hamlin, Geo. Cole, S. J. Hunkin and W. I. Terry.

Committee on Scientific Work: Drs. Harold Brunn, Philip K. Brown, C. M. Cooper and W. F. B. Wakefield.

Committee on Public Policy and Legislation: Drs. J. H. Parkinson, George H. Evans and H. Bert. Ellis.

Committee on Arrangements: Drs. H. A. L. Ryfkogel and G. E. Ebright and Harry M. Sherman.

On motion, the assessment for the next year was fixed at $2.00.

Delegates to the International Congress on Tuberculosis, Paris: Drs. George H. Evans and F. M. Pottenger. These gentlemen were also elected delegates to the National Association for the Study of Tuberculosis.

On motion, the recommendations of the Tuberculosis Committee were adopted and the committee continued.

On motion, Drs. Frank Ainsworth and Emmet Rix-

ford were appointed to arrange for railroad transportation and stop-over privileges for the next meeting.

On motion, the Secretary was instructed to write a letter to the State Board of Health, commending its excellent work.

A vote of thanks was then extended to the members of the Riverside County Medical Society for their very pleasant and satisfactory arrangements for the meeting and their entertainment of the visiting members.

The minutes were then read and approved as read.

PHILIP MILLS JONES, Secretary.

PROPOSED AMENDMENT TO CONSTITUTION.

First Publication.

To amend Article X by adding after the second sentence the following:

The fiscal year of the Society shall be from January 1st to December 31st. The number of members in good standing in each component society on the first day of January of each year, shall be taken as the basis for the assessment for that fiscal year, as fixed by the House of Delegates.

TENDON TRANSPLANTATION.

By F. LANGE, Munich.

Translated by James T. Watkins, M. D., San Francisco.

[It has been said that the following paper, never before published in English, is the best essay yet written on the subject of tendon transplantation. The translation has been criticized on the ground that it followed too closely the German syntax. The contention is possibly true, but, as it speaks for the extreme accuracy of the translator, this may be considered rather a virtue than a fault.—Ed.]

MEINE HERREN: Vulpius has collected the literature of tendon transplantation with the greatest industry, and has given so excellent a presentation of the history of this operation that I need not now go into it. Consequently I believe I may go directly in medias res, and will especially emphasize those points concerning which I am of another opinion from the last speaker, Vulpius.

When, seven years ago, I was induced by the well-known work of Drobnik, to take up the operation of tendon transplantation, I was at first satisfied if—to use a simple example—with a paralytic club-foot I was able by means of the tendon-transplantation to prevent a recurrence of the deformity, and to bring the patient to the point where he could walk without apparatus. Soon, however, I perceived that the gait of my operated club-foot patients varied greatly.

At that time, with these paralytic clubfeet, in which there is as a rule a paralysis of the Extens. Dig. and of both Peronei, I always performed the same operation; I had split up the lateral half of the Tibialis Ant., transposed it to the outer side, and sewed it to the cuboid.

With all of these patients the operation was apparently equally successful; at least, the form of the foot was in all cases equally pleasing and equally correct; the whole sole was on the floor in standing; but, notwithstanding, the gait of the patients was very unequal. Two groups could be differentiated. Some of the patients always walked firmly and gracefully, so that nothing abnormal appeared in their gait; the others could walk equally well on the floor of a room; as soon, however, as they were compelled to walk out of doors and upon uneven streets, the gait became ungraceful, uncertain and limping. This fact so impressed me that I examined more carefully the results of my operations, and found that with those patients who walked well, active supination and pronation of the foot were possible. Consequently the foot could adapt itself to the irregularities of the floor. The other patients could perform distinct dorsal and plantar flexion; active supination and pronation were, however, impossible. This explained the uncertainty and clumsiness of the gait on an uneven surface.

These observations induced me to pay attention to the function of transplanted tendons, and to note just how far a split-up transplanted tendon retained functional independence. The result of these investigations was instructing, though in certain respects restricting (deprimirend). Only with the tibial. ant. can it occur that the split-off portion learns to work independently of the part left in place. With all the other muscles of which I have split up and transplanted portions, I have thus far never observed that the split-up portions have acquired a functional independence.

It is to be admitted, nevertheless, that the patients have received benefit from splitting the tendons in this way, since a normal shape of the foot was obtained by such tendon transplantation, and a recurrence of the deformity prevented. However, from a functional standpoint, the result of the operation in these patients was always a second-class result. This was true of the club-feet operated upon which did not learn separate supination and pronation. Still more striking was the inferiority of the result in cases where, for example, I had replaced the dorsal flexors by portions of the gastrocnemius, and in which, after this operation, the new dorsal flexors always contracted simultaneously with the remaining plantar flexor, with the consequence that separate dorsal and plantar flexion was impossible. Such a result of the tendon transplantation was no better than a successful arthrodesis; the foot remained as stiff and dead as an artificial foot, an improved circulation from active motion is absent, and both its usefulness to the patient and the satisfaction of the operator are diminished.

These experiences guided me in making my operation plans. I avoided as much as possible splitting tendons, and sought, as often as I could, to transplant entire muscles. In place of the splitting and partial plastic operation, I undertook the transplantation of the entire muscle, the total tendon transplantation. However, even after carrying out this operation, all patients did not get functional independence of the transplanted muscles. If, for example, with a quadriceps paralysis, I carried the biceps and semitendinosus forward to replace the paralyzed muscles, and permitted the semimembranosus to remain behind in the popliteal space, I have often observed that all three muscles contracted simultaneously after the operation, just as they normally do. The muscles which had been transplanted forward sought to extend the leg; the untouched semimembranosus, however, attempted a simultaneous flexion, and the motion resulted only after a conflict between the anterior and posterior muscle groups. If the anterior muscles were stronger, extension resulted; was the untouched semimembranosus more powerful, flexion ensued.

Though most of these patients received benefit from the operation, since they learned to walk without apparatus, still, in a functional sense, this result was only second class; at least, there occurred a quite unnecessary dissipation of strength if the anterior and posterior muscles worked at the same time. These experiences showed me that it is not always easy for the patients, even if the entire muscle is transplanted, to work independently with the new muscle, and to carry out the desired motions. I was further influenced by these facts in making my plans for the operation. I avoided as much as possible separating from one another muscles which as a rule work together. I sought further, in order to render more easy for the patients the independent contraction of the new muscles, to replace paralyzed muscles by muscles of the most nearly related function. My chief object was to obtain functional inde-

pendence for the transplanted muscle. At least the more important motions of the foot, dorsal and plantar flexion, supination and pronation, ought to be possible separately. Only then could one speak of a normal use of the foot.

The recognition of this fact induced me to completely alter my plans for operation. Till now, the construction of the operation plans had been for me a comparatively easy matter; each paralyzed muscle received from the neighboring healthy muscles a half or a third, till each paralyzed tendon was provided with living muscle substance. I think that most operators have at first done the same thing. It was easiest to follow the natural muscle relations. Vulpius includes the same view in his monograph to-day, and also carries it out in his operation plan. He, however—and according to my experience this is a mistake—does not take into consideration the functional independence of the transplanted muscle. He needlessly transplants to the dorsal flexors—to introduce examples—portions of the gastrocnemius, which never learn to work independently; he supplies simultaneously supinators and pronators with gastrocnemius muscle substance, and thus sacrifices the independence of the most importaut functions of the foot. Vulpius, who has deserved great credit for his warm recommendations of the new operation in the field of tendon transplantation, is an authority so highly valued by me that I dare not think lightly of his opposition on this important point. I beg, therefore, to be permitted to show the difference between the operation plans of Vulpius and myself, on the foot which becomes deformed through infantile paralysis, and which is for us the most important object for operation.

As I have already said, my aim is to obtain functional independence for all those muscles which are of importance for the normal use of the foot. Since split-off portions, as a rule, do not learn to work independently, I was compelled to transplant entire muscles. It is a very simple calculation: If three muscles are paralyzed, and if I replace these three paralyzed muscles by three other undivided muscles, I must sacrifice some function, or at least the independence of some functions. It is necessary, therefore, first to determine which muscles of the foot can best be dispensed with, or—to be more exact—in which muscles of the foot can one best renounce independence of function? The foot has nine long foot muscles; these nine foot muscles are the following: One plantar flexor (gastrocnemius), one supinator (tibial. posticus), two dorsal flexors (tibial. anticus and extens. digit.), two pronators (the two peronei), and finally three muscles which serve almost exclusively for the movement of the toes (extens. halluc., flexor halluc., and flexor digit.).

Of these nine muscles, three may, without further consideration, be dispensed with; at least, so far as functional independence is concerned; the extens. halluc., flexor halluc., and one peroneus. I can, for example, unhesitatingly employ the extens. halluc. to replace an important paralyzed muscle, if I stitch the peripheral stump of the extens. halluc. ascendingly upon the extens. digit.; since there is no necessity for an ability to extend the great toe separately. The same is true for the flexor halluc., and the same for one peroneus; for both peronei cause pronation of the foot; when the foot is used, both contract simultaneously as a rule, and from a functional standpoint it is quite immaterial whether both peroneal tendons are provided with power and made tense by one or by two muscle-bellies.

1. Based upon these considerations, the plan for operation is built up very simply on the principle of functional independence, so long as the paralysis is limited to from one to three muscles. Let us assume that the tib. ant., extens. halluc. longus, and extens. dig. are paralyzed. Tib. ant. is replaced by the flexor halluc. long.; extens. halluc. long. and extens. dig. together receive one peroneus; finally, the peripheral stump of the divided flexor halluc. is ascendingly stitched to the flexor dig., and the peripheral stump of the cut peroneus is united to the remaining peroneus. The presumption for this operation is that the paralytic tendons have not suffered too much through the paralysis, and that they have not become too thin and degenerated; for, otherwise, one would be compelled to altogether avoid using the paralyzed tendons, and to employ, instead, the periosteal tendon transplantation, an operation which I must later discuss more minutely. With such a paralysis, Vulpius proceeds in the following manner: Tib. ant. receives a section from the achilles tendon, that is the dorsal flexor is replaced by a portion of the plantar flexor, which can never learn to work independently. The paralyzed extens. dig. is supplied by its antagonist, the flexor dig., and furthermore, by a portion of the peroneus longus; the extens. halluc. is ascendingly united to the extens. dig. The other operation plans of Vulpius are similar whenever three muscles are deficient. From this one example, you see that Vulpius pays no attention to the functional independence of the force-exerting muscle, and that in consequence, even in these mild paralyses, we disagree in our operation plans.

2. Still more characteristic is the difference whenever the number of the paralyzed muscles is greater. If four muscles are lacking; for example, tib. ant., exteus. halluc., extens. dig., and peron. long., Vulpius proceeds in the following manner: 1, the paralyzed tib. ant. is supplied by the tib. post. and the flexor dig.; 2, Vulpius unites a third of the achilles tendon with the paralytic extens. dig.; 3, the peron. long. is united ascendingly to the brevis; 4, the extens. halluc. is attached to the extens. dig.; and finally, the peripheral stump of the divided tib. post. is sutured to the achilles tendon. Therefore, the muscle-belly of the gastroc. supplies: 1, the rest of the achilles tendon, the plantar flexor; 2, the extens. dig., the antagonistic dorsal flexor; 3, the extens. halluc.; 4, the tib. post., which as a supinator is again an antagonist to the not only dorsally flexing but also pronating extens. dig.

Since split-off portions of the gastrocnemius do not learn to work independently, the result follows that as soon as the muscle-belly of the gastrocnemius contracts, all the named tendons simultaneously become tense, and fix the foot in the middle position, somewhat after the manner of an arthrodesis. Independent plantar flexion is impossible in such a foot; independent dorsal flexion can only be produced by the tib. ant. which has been provided with new muscle substance; however, this always brings the foot at the same time into the clubfoot position, because the independent co-operation of the extens. dig. is lacking. Is the result proportional to the quite complicated operation? With the exception of the flexor dig., all the muscles of the foot are provided with living muscle-substance. With regard to appearance, such a foot might resemble a normal foot; but, in respect of function, it is much less useful than a normal foot. How then would one solve this problem if one strove for the functional independence of the more important muscles and normal use of the musculature? If four of the long muscles fail, one must dispense with the mobility of the toes. This function is of secondary importance to shoe-wearing, civilized men, and one which most of us scarcely employ at all.

Therefore one may unhesitatingly employ the muscles which exclusively perform this function, the flexor halluc., flexor dig., and extens. halluc., to replace the paralyzed muscles, on condition that one takes away all the muscles which move the toes, flexors as well as extensors. One of the two groups

alone, however, must not remain behind, because otherwise toe-contractures arise which may become very troublesome. Therefore, with a paralysis of four muscles, there still remain five muscles for the more important functions of the foot. As a rule, with these extensive paralyses, the paralytic tendons are so thin and so easily stretched that, in the interests of an exact suturing and the trustworthiness of the result, it is recommended to avoid the use of the paralytic tendons, and instead of these, to employ the periosteal plastic operation which is essentially more certain.

The points of the foot-skeleton which must be supplied with muscle substance can be easily indicated on a diagram. First, the normal insertion of the achilles tendon, where the plantar flexor, the gastrocnemius, finds its hold; this point is marked I on the diagram. The points II and III indicate the attachment of the dorsal flexors; II corresponds to the insertion of tib. ant. on the first cuneiform bone. III is not a point of attachment on the normal foot; the muscle which must be attached there must extend along the anterior surface of the leg, similarly to the extens. dig. It works as a dorsal flexor, and at the same time as a pronator; from a functional standpoint it corresponds therefore to a part of the extens. dig., the so-called peroneus tertius. This muscle very often is absent in the normal foot. With paralysis of the extens. dig., however, the tendon of the peroneus tertius is as a rule so thin that it is advisable not to use it, and in this case the periosteal tendon transplantation is especially to be recommended. IV indicates the insertion of the tib. post., that is, of that muscle which is especially concerned in supination. Finally, V shows the insertion of the peron. brevis, the most important pronator. (Fig. I.) These five bony points must be provided with living muscle tissue. To be used for this purpose, there remain flexor hallucis, flexor dig., extens. halluc., and a peroneus. In place of the thirty-five operation plans arranged by Vulpius for the case when four muscles are paralyzed, this scheme alone suffices for me.

Let us turn now to the already mentioned paralysis of the tib. ant., extens. halluc., extens. dig., and peron. long. Flexor halluc. and flexor dig. are divided at the internal malleolus, transferred to the anterior surface of the leg, and carried to the dorsum of the foot through the medial and lateral compartments of the ligamentum cruciatum. The flexor halluc. is sutured to point II and the flexor dig. to point III. The patient can move his foot which has been operated upon in this way separately in dorsal and plantar flexion, and, if he wishes, in supination and pronation, these being the functions which are necessary in the daily use of the limb. The object is attained through the transposition of two muscles; Vulpius for the same paralysis cuts through four entire muscles and splits up part of two muscles—that is, six times makes a tendon-to-tendon suture—and still his result is from a functional standpoint much inferior to that of the simpler operation. In proportion as the paralyses are extensive, the greater become the differences between Vulpius' operation plans and my own. According to Vulpius' views, if five muscles are paralyzed the remaining muscular power can only be divided up so that it holds the ankle joint which has been fixed by shortening all the tendons as nearly as possible in equilibrium. In such cases, Vulpius dispenses with all active motion of the foot; for example, he distributes the remaining musculature to the dorsal flexors, and seeks to obtain only a right-angled position of the foot. Of all the plans which Vulpius proposes for the paralysis of five muscles, I cannot accept a single one; for all suffer from the fact that Vulpius takes into consideration only seven long foot muscles. As a matter of fact, however, there are nine which may be employed. In order to explain this mistake, I am compelled to consider in a few words the diagnosis of muscle-paralysis.

When I began to perform tendon transplantations, I tried hard to determine the paralyses of individual muscles by taking their electrical reactions. That is, I used the same method which most internists employ to-day. I convinced myself that this method did very little for our purposes, because little children for the most part struggle hard and render an exact knowledge of the voluntary motions impossible. In this view I agree entirely with Vulpius, and with children have found it of greater advantage instead of using electricity to induce movements by tickling the soles of the feet, etc., and thus to study and palpate the tendons of individual muscles. In this way information may be obtained of the condition of all the muscles of the foot—with the exception of the flex. halluc. and the flex. dig. These two muscles are so deeply placed that they cannot be palpated, and in the doubtful cases the only alternative is to expose them during the operation. These are the two muscles which Vulpius does not take into consideration, if he counts only seven foot muscles; and this then explains his mistaken assumption that if five muscles are paralyzed, only two remain to replace them. In reality, the foot has nine muscles. If five are paralyzed, four remain to replace them. The bony points which are or which must be provided with living muscle tissue are the same as in the preceding diagram, only in those cases where five muscles are paralyzed, points II and III must be supplied by a single dorsal flexor. How that is accomplished is in principle immaterial; either the dorsal flexor can be split, or a silk tendon can branch off from the unsplit muscle. So long as two muscles are present which cause separate supination and pronation, with a paralysis of five muscles, a usefulness may be acquired which is not much inferior to that of a normal foot.

3. More difficult is the construction of an operation plan when six muscles are paralyzed. Vulpius, who with a paralysis of five muscles, was compelled to dispense with active motion of the foot, expects in these paralyses nothing from the tendon transplantation, since he can produce only one muscle to replace them; whereas, there are in reality three muscles which can be employed. Even in these feet my aim is as much as possible to obtain functional independence for the individual muscles; as I have already shown, that is only possible if splitting the muscle is avoided, and therefore only three bony points can be provided with muscle tissue; they are the points I, II and III. If for example all the muscles are paralyzed with the exception of the gastroc., tib. post., and peron. brevis, the tib. post. and peron. brevis are divided at the level of the malleoli, carried forward on the anterior surface of the leg, drawn under the lig. cruciat., and finally the tib. post. attached to II and the peron. brevis to III. (Fig. 2). One must be sure that no muscles remain which are attached to points IV and V. These muscles which are there exclusively for supination and pronation (tib. post., per. long., and per. brevis) must be completely sacrificed, because otherwise contractures can occur in the sense of varus or valgus. A foot operated upon after the described method is plantar-flexed by the gastroc., which inserts at I; II and III cause dorsal flexion; II alone, dorsal flexion and supination, I and II, plantar flexion and supination. In like manner, pronation is caused by III or by I and III. Therefore, separate plantar flexion, and separate supination and pronation are possible; that is to be seen in the photographs of these children, in whom six muscles had been paralyzed, and only three were left, and in whom this operation plan was carried out.

M. R. Paralysis of right foot in consequence of poliomyelitis; retained R. only gastroc., extens. halluc., and extens. dig. In Oct. 1902, the last two muscles were united with the periosteum at II and III. Fig. 3 shows

the function in May, 1902* (dorsal flexion), Fig. 4 (plantar flexion), Fig. 5 (pronation), Fig. 6 (supination).

Patients who have been operated upon in this way can perform the most important motions of the foot. They learn to walk firmly and well; still, in my experience, the loss in muscular force shows itself in the fact that the foot tires more quickly than a foot in which four or five healthy muscles can still be used. If seven muscles are paralyzed, and only two muscles present, as a rule supination and pronation must be dispensed with, while separate dorsal flexion and separate plantar flexion can be obtained if the points II and III are supplied by a single muscle. Thus, for example, with the gastroc. as a plantar flexor, and the extens. halluc. as a dorsal flexor, I have still obtained a foot in which active dorsal and plantar flexion was possible through about half the normal range of motion, but of course with diminished strength. In order to compensate for the instability which arises from the loss of independent supination and pronation, and to prevent bending when on an uneven surface, these patients must be given especially strongly made shoes, and an insole of celluloid and steel wire.

In the very severe paralyses, in which eight muscles have been destroyed, and only one retained, of course an active mobility of the foot worth mentioning is, as a rule, not to be expected from the operation. If a strong gastroc. is present, the medial and lateral thirds of the achilles tendon can be split off, brought forward to the anterior surface of the leg, and sutured to points II and III. The three muscles which are obtained in this way do not learn to work separately, but by their contraction they fix the foot in a right-angled position, as after a successful arthrodesis operation. If only a thin muscle belly like that of the peroneus is left, as a rule such a result cannot be obtained. For the correction of the contractures, the splitting-off and transplantation of a portion can be of value; however, an artificial stiffening of the ankle joint—either through an arthrodesis or a small splint-insole of celluloid and steel wire—cannot be dispensed with.

I have attempted to convince you that in extensive paralyses, all the paralyzed muscles should not be provided with power—as Vulpius tries to do—but that, above all, functional independence of the transplanted muscles and a normal use of the joint operated upon must be sought, and that to obtain this result less important muscles must be sacrificed. If, for example, only four or five foot muscles are present, the problem to obtain a useful foot is to be solved in another way than if nine muscles can be employed as in the normal foot; and with all respect and all admiration for the sufficient arrangement of the musculature of normal joints, in paralyzed joints one need not shrink from deviation from the normal order of arrangement of the muscles, in order to obtain the most nearly normal function for the joint. I beg you earnestly to test for yourselves these assertions of mine which I have made on the basis of my experience in over 200 operations, and I hope that you will be the more easily induced to do so as the operation plans are so simple, if the principle of the functional independence of the new muscles is kept in the foreground.

With three schematic diagrams, I could place before you the operation plans for all paralyses of the foot. For carrying out his methods, Vulpius requires 116 operation plans, and even then not all the possibilities are exhausted, because, as I have already shown, Vulpius does not take two muscles into consideration. What I have already told you forms the theoretical groundwork of my operation. Its practical performance would however encounter insurmountable difficulties, if we were confined to the original method of tendon transplantation, which transplants the force-giving muscle to the paralyzed tendon. I need only to direct your attention to the insertion point III of my diagram, which does not occur at all in the normal foot, in order to show you that in many cases the transplanted tendon must be attached directly to the bone. To this must be added that the result of the older method is absolutely dependent upon the condition of the paralyzed tendons. But the fewer the muscles remaining on a foot, the more important is it that these few muscles work with absolute certainty. Therefore in all severe paralyses I employ as a rule the periosteal method. In the beginning I have recommended this method because I not seldom found the tendon of the paralyzed muscle so thin and friable that a reliable suturing of the force-giving muscle with the paralyzed tendon was impossible. This occurs not only in tendons which in themselves are delicate and thin, but it is true as a rule of those tendons which under normal conditions are strong and thick, as, for example, the quadriceps tendon. On this point, the observations of Krause, Vulpius, and myself, entirely agree. Vulpius has for this reason given up the old method of tendon to tendon suture in quadriceps paralysis, which offers the most difficult problem for tendon transplantation; and in its place has, following my procedure, taken up the periosteal suture. Thus he has admitted the advantage of the periosteal method as opposed to the original tendon transplantation. Nevertheless, in his monograph, Vulpius expresses all possible objection to the periosteal method; since my operation plans rest for the most part upon the periosteal method, and stand or fall with it, I must more fully discuss his objections. Vulpius questions whether the suturing of the tendon to the periosteum, which in places is quite friable, can be more certain and more permanent than the suturing to tendinous substance. As a matter of fact, in adults the periosteum of many bones, as for example the tibia, which has to be considered in a quadriceps plastic operation, is not a very thick membrane; however, this disadvantage is richly compensated for by the great surface-attachment which the periosteum of this bone offers. If one begins above, on the insertion of the lig. patell. inf., to use periosteum, the upper third, and even the upper half of the periosteum of the tibia may be basted with silk threads, and it is not necessary to confine the suture to the anterior surface, but one can also employ the lateral surface of the tibia for points of attachment for the suture, so that as a matter of fact the suture is much firmer on the periosteum than is possible with a single tendon.

Still more advantageous are the conditions in the foot, and especially in the feet of children, who represent the chief contingent of our patients for tendon transplantation. The periosteum of the child is of itself much thicker than that of an adult; furtber, the periosteum is strengthened by the ligaments and the prolongations of the joint capsule and of the tendons, and finally in youthful patients the surface of the bones is still partly cartilaginous. All these points can be pierced, and the thread acquires in this way a hold such as is never obtainable by suturing to a tendon. The certainty of the periosteal suture I value so highly that even in tendons which have not suffered from the paralysis—as for example in Little's disease—I repeatedly give preference to the periosteal suture.

Since in the course of years and on the grounds of my experience, I have somewhat modified the technique of the periosteal transplantation, I again give a connected description.

Let us assume that we have to do with a paralysis of the extens. dig. The problem is to obtain a muscle which

Figs. 2 and 3 are copied from the original photographs, because the photographs themselves are not suitable for reproduction.

*This must be a typographical error for 1903, since before the operation such motion would be impossible.—Translator.

dorsally flexes and pronates. It must attach at point III to the dorsal surface of the cuboid. The extens. halluc. can be employed for this purpose. An incision on the dorsum of the foot exposes the extens. halluc. The tendon is divided at about the middle of the dorsum of the foot. The central end is isolated and basted with silk for the distance of 2 to 3 cms. The fourth metatarsal and the cuboid are exposed through a second incision on the dorsum of the foot running 3 cms from the border of the foot and parallel with it. With a long kornzange (forceps?) a canal is made by blunt dissection in the subcutaneous tissues from the lateral to the medial wound. Through this canal the tendon of the extens. halluc. is drawn to the cuboid, the new insertion of the muscle. Now the periosteum of the cuboid is split for the distance of 2 cms, pushed back, and the end of the tendon placed in the cleft of the periosteum; then the two silk tendon threads are carried by two or three stitches through that part of the periosteum of cuboid and last metatarsal lying peripherally to the periosteal cleft, the needle piercing as deeply as possible. At the same time I try to avoid carrying the needle into the joint; however, I go unhesitatingly with my suture in to the wall of the joint capsule through the ligaments and through the cartilage. When the sutures are passed deeply enough, difficulty is encountered as a rule in extracting the needle, therefore thick sharply curved needles with short points must be employed. When both threads have been carried through, they are pulled upon according to the tension desired for the new muscle and then knotted. Finally, the loosened periosteum of the cuboid is drawn together over the tendon by two or three sutures.

In order to prove experimentally the reliability of the periosteal suture, I have made investigation on cadavers. In a child's cadaver, Vulpius' modification of Nicoladoni's suture (tendon to tendon) withstood a pull of only 2 to 3 kg.; my periosteal suture on the other hand only cut through under a strain of 14 to 15 kg. It withstood five times as much strain as Vulpius' suture. On the body of an adult Vulpius' suture was able to stand a strain of 10 kg.; the strength of the periosteal method could not in this case be certainly determined, since the silk threads broke under a pull of 30 kg., while in spite of the extreme strain put upon it the periosteum had not given way in the least.

With our patients the conditions are much less suitable for Vulpius' tendon, since we have to do with paralyzed tendons, which are often extraordinarily friable. I suspect that many paralyzed tendons give way under a pull of 100 to 200 g., and I do not think myself wrong, if in such cases I value the strength of the periosteal suture as 100 times greater than that of Vulpius' suture. In spite of all advantages which the periosteal method offers, it could, however, have found only a very limited employment in our practice, since many muscles are too short to unite them with the new points of insertion, which in many cases is necessary. I have therefore repeatedly elongated the transplanted muscles by means of silk tendons, and in this way I have rendered possible a general employment of the periosteal method in all cases. As you know, Gluck was the first who employed artificial tendons of catgut to replace defects of tendons. His works have in his own time not received the consideration which they deserved, and therefore I take a special satisfaction in saying here that the experiences which I have had with 120 silk tendons support throughout Gluck's original assertion.

Vulpius has a good deal to say against the silk tendon just as against the periosteal transplantation. Therefore I gladly take this occasion to repeat the further observations which I have made about tendon transplantation with silk tendons. I have already said that the primary healing of a wound in which had been placed a silk tendon, presented no difficulties. Even with a disturbance of the wound healing, the silk tendon can still heal in.

Two years ago I made experiments with the serviceableness of celluloid thread in tendon transplantation; and in a quadriceps plastic operation, where I made a 10 cm. long silk tendon, the skin sutures were made with celluloid thread. The skin sutures all suppurated, the edges of the wound separated, and the silk tendon was visible in the floor of the wound. Nevertheless it finally healed in, and holds to-day. Incidentally I wish to remark that my experiments with celluloid thread proved entirely unsatisfactory, and I emphatically recommend the employment of silk for artificial tendons and of silkworm for skin sutures.

However, I wished to inform you of my experience with silk tendons. The result is not finally assured by the primary healing in. In my earlier publication, I have already reported that in two paralytic pes equinus cases I have observed that the silk tendons of the newly made dorsal flexors, in consequence of too great a tension, have cut through the skin of the dorsum of the foot. This danger, the tension decubitus, I have learned in the meantime to avoid. If we have to do with a severe paralytic pes equinus, and for example only the tib. post. and peron. brevis. can be employed to replace the paralyzed dorsal flexors, so that the employment of silk tendons is necessary, I obtain first through a ruthless over-correction a high grade pes calcaneus. While the foot is held in the extremest calcaneus, I suture the transplanted tendons under light tension, and fix the foot in the same position. If after six or eight weeks the dressing is removed, the foot remains at first in the calcaneus position, and sinks only in the course of two or three months back to the right-angled position. During this time the silk tendons become surrounded with true tendon tissue, and the strong tension of the artificial tendon which is caused by the sinking of the foot from the calcaneus position to the normal middle position has then no further evil consequence. So much for the tension decubitus.

A further danger for the silk tendon is the knot decubitus. If for example I make a silk tendon and have had to employ for it two to four threads of No. 12 silk (Turner), I have in the beginning knotted the threads to the periosteum. In this way is made a knot which has a radius of 2 to 3 mm. On fatty portions of the skin, as for example on the anterior surface of the leg, such a knot is quite insignificant. On lean portions, however—for example on the dorsum of the foot—such a knot makes a prominence which can be felt through the skin. In this way is caused the danger of decubitus at this point at the subsequent use of the foot.

This also did I learn through experience. In two patients with clubfeet primary union occurred; after the removal of the dressing they were sent home with completely closed cicatrices. However, a few weeks after the discharge, the thin cicatrix over the tendon-knot on foot was rubbed through by using the foot; and in this way the knots were exposed in the decubitus wound. Since not enough natural tendon-tissue had developed, I confined myself to regularly painting the knot with iodin, and careful antiseptic bandaging. But at the same time in order to stimulate tissue growth, I permitted free use of the foot. In both cases I was able to avoid a severe infection of the silk tendon, although for months an opening the size of the head of a pin persisted at the site of the knot., out of which was discharged in small quantities a cloudy serous secretion. When after six months sufficient tendon-tissue had developed, I removed the knots with a knife. In both patients the wound then closed, and the complete result of the operation was retained.

This danger of knot decubitus can likewise be avoided, if instead of on the periphery the knot be placed centrally on the tendon, where it is protected by a sufficient fatty pad of the skin, and on the other hand it attaches the U-shaped bend of the silk thread to the periosteum.

(*To be continued.*)

Special Rates to Portland.

Word has been received from the Committee of Arrangements of the American Medical Association that Eastern Trunk Lines and the Central Passenger Association have granted a one fare round trip rate, thus making a one fare round trip rate to Portland from all parts of the United States. The side-trip to Alaska will probably be as low as $60; the date of sailing about 16th or 17th of July.

NEPHROTOMY FOR STONE IN THE KIDNEY; EXCESSIVE HEMORRHAGE; NEPHRECTOMY; RECOVERY.*

By C. M. COOPER, M. B., and WALLACE I. TERRY, M. D., San Francisco.

B. B. Machinist, 31 years of age, married, with a family, one of whom has tuberculosis of the hip joint, came to my office complaining of deep-seated pain in the right lumbar region of fifteen years duration. This pain was dull in character, more or less constantly present, frequently underwent exacerbations both by day and night and necessitated his laying off work for about two days every week. During the fifteen years the pain had never radiated to the shoulder or to the testis, and though often brought on by active movements, yet frequently occurred when he was entirely at rest. There had never been any frequency of micturition nor any discoloration of the skin. He had vomited only on two occasions and his bowels had been regular. He had never noticed anything abnormal about the urine or about the bowel discharges, he was losing no weight, and in fact apart from the pain, considered himself an exceptionally healthy man, having previously suffered only from influenza. His pain had been variously ascribed to chronic appendicitis, gallstone trouble, stomach adhesions, lumbago and kidney gravel by physicians who had seen him during some of the exacerbations above referred to. To relieve these he had been in the habit of taking hot gin and water which he considered only fairly efficacious.

Examination showed a short, spare, muscular man with clear skin and conjunctivæ, whose heart and lungs were sound; whose liver and spleen were normal in size, and whose nervous, glandular, locomotory and hemopoietic systems were healthy. There was some rigidity of the right side of the abdomen both of the anterior and posterior muscles, this rigidity being more marked in the upper quadrant. There was tenderness in the right loin anteriorly and posteriorly and pressure all along the 12th rib caused pain.

The right diaphragm was higher than the left, moved to a less extent, and the respiratory murmur over the right lung base was faint, the percussion note, however, being normal. There was no tenderness at McBurney's point. He could actively move and I could passively stretch his muscles and ligaments without causing him pain, but jumping off a chair in my office produced a characteristic exacerbation.

Stomach examination revealed nothing abnormal. The tongue was clear, the appetite good. The rectal examination negative. Immersion in a hot bath relaxed his abdomen and I could then palpate the lower pole of his right kidney which was distinctly tender on the slightest pressure, whilst Murphy's maneuver elicited no gall bladder tenderness. Each twenty-four hours urine was collected for a week and a specimen examined daily, as also the urine passed after handling the kidney (and in this connection I would add that it is only gross changes after such handling that have a real clinical significance). The average amount of urine for twenty-four hours was from 45 to 50 oz.; specific gravity 1020, acid containing no albumen or sugar, but a few epithelial and white blood cells and a few calcium oxalate crystals; nothing positive.

Diagnosis. In view of the above findings it seemed that at this time the appendix, gall bladder, stomach and lumbar muscles as causal agents of the pain could be definitely ruled out, and that the right kidney was at fault; that there was probably some perinephritis involving the diaphragm, particularly the fasciculus arising from the last rib. Moreover, the fixed pain, the duration, the tender lower pole of kidney with absence of anything abnormal in the urine except the few crystals; the maintenance of the general health, the exacerbation produced by jumping off the chair, indicated a renal calculus as the most likely lesion, this calculus probably being of the hard variety firmly fixed in the surrounding tissues. Such a diagnosis was made.

A radiogram was taken and showed distinctly the shadow of the stone and the absence of any in the left kidney and ureter, the fluoroscope giving the same result. I have brought here tonight a print which shows distinctly the shadows cast by the kidneys and the spleen, as well as the more transparent areas of the ascending and descending colon, and which thus demonstrates what an indispensable adjuvant the X-ray is to our other clinical methods of diagnosis.

Knowing the patient had a left kidney free from calculus and normal in size, and that he was passing a normal amount of normal urine, I did not segregate his bladder or catheterize his ureter; after meditation I consider such an omission to have been an error and that scientifically I had no right to assume a fact, the truth or fallacy of which I could readily have demonstrated. I asked Dr. Terry to aid me and for the future conduct of the case we are equally responsible.

Operation. The usual posterior oblique incision was made in the right loin and the kidney exposed. It was higher up under the ribs than usual, large, congested, and adherent to the surrounding tissues, more particularly to the diaphragm. The calculi could be easily palpated in its lower half. There was some difficulty in delivering the kidney, but this was finally accomplished, though looking back we believe that a speedier and less traumatic way of doing so would have resulted from a preliminary, subperiosteal division of the twelfth rib. An incision was made into the pelvis along the anemic line, the knife there striking the stone. This incision was extended to include about one-third of the length of the kidney. The stone of the oxalic acid variety was found to be irregular and its processes very firmly fixed in the calices. It was loosened as much as possible with a blunt dissector, but its extraction was difficult, so firmly embedded were its component parts. After removal of the pelvic stone, another smaller one was found in the kidney tissue. A finger was introduced into the pelvis and the other calices explored and a ureteral sound passed. In view of the congestion the organ was now decapsulated, three chromic gut mattress sutures introduced, the kidney replaced, and the external wound closed except for a cigarette drain down to the kidney. There was extremely little hemorrhage throughout the operation, the incision along the anemic line giving apparently every satisfaction.

After progress of the patient. The after treatment was as usual. During the first twenty-four hours 17½ ounces of dark red urine were passed. During the second twenty-four hours 19 ounces of dark red urine were passed. On the morning of the third day the cigarette drain was removed. This was followed by the oozing of about six ounces of dark red blood. The wound was plugged and the hemorrhage ceased, to be again temporarily renewed that same day during a bowel movement; the patient then losing about two ounces. The wound otherwise was quite healthy and that night his tongue was clean, his temperature 98.6°, pulse 84, respiration 22, the amount of dark red urine passed in the third twenty-four hours being fourteen ounces.

On the morning of the fourth day he suffered from an attack of renal colic due to the passage of a blood clot. From that time to the morning of the seventh day after operation he passed varying amounts of blood in his urine, there being, however, no further hemorrhage from the wound. Sometimes the urine would be almost clear, but the bleeding

*Read before the San Francisco County Medical Society, July, 1904.

would again recur. During this time uremic symptoms developed and he became a very sick man. On the morning of the seventh day he, for the first time, passed clear, normal urine; thus for the first time demonstrating a normal physiological left kidney; but now his right loin began to fill up. His pulse was 140, weak and irregular. We at once opened up the wound. Its margins were infiltrated with partially coagulated blood clot. The kidney lay in a bed of this same clot. This was rapidly shelled out, but owing to retraction and fixation of the renal pedicle the kidney could not be delivered and any attempt to do so would, we feel sure, have led to tearing of the pedicle, hence knowing the other kidney was healthy and as blood was flowing freely from the whole incision and more particularly from the upper angle under the ribs, we decided to do a nephrectomy. The pedicle was clamped piecemeal with several clamps and the kidney excised, the clamps, in view of the patient's condition, being left in position. During the operation Dr. Sherman kindly infused the patient with a solution of epinephrin. The examination of the removed kidney showed that the bleeding came from the whole cut surface, that there was no opened large vessel, and no calculus had escaped notice. There had been practically no attempt at healing, the raw surfaces being covered with unorganized blood clots.

The future progress of the patient was satisfactorily uneventful. The forceps were removed at the end of 72 hours, the wound quickly filled up and completely healed and the man is now able to work six days in the week without pain and is passing daily a normal amount of normal urine.

RECURRENT ECLAMPSIA, WITH REPORT OF CASE.

By. O. B. SPALDING, M. D., Yreka.

I WAS recently called to attend a supposed confinement case, twenty miles from town, the mounted messenger urging haste. On my arrival at the cabin, I found the patient in the throes of eclampsia, and I think that I may be pardoned for dreading the outcome, as hospital or medical assistance was out of the question. To those of us who have had to deal with such cases, the picture presented by the unfortunate subject during an attack can never be forgotten.

Patient aged 20 years, married, became pregnant for the first time eighteen months ago. Seven months later, she was suddenly seized with severe frontal headache, cardialgia and dimness of vision, followed by convulsions. Drs. Dwinell and Tebbe, of Montague, were summoned. Notwithstanding their efficient medical treatment during 27 attacks covering a period of 14 hours, a dead child was spontaneously delivered. She had no further attacks, but remained in a more or less comatose condition for 48 hours. From that time until the present attack, her mind has been clouded, and general health poor.

The present attack commenced in a manner similar to the first, severe frontal headache and cardialgia, followed by sudden and complete loss of vision. Previous to my arrival, she had five attacks covering a period of three and a half hours. I found her in a sixth attack, lasting four minutes, followed by profound coma, temperature 101°, pulse weak and rapid. There were no signs of the onset of labor; fetal heart or movements could not be distinguished. A seventh attack occurred in twenty-five minutes, followed by four more at diminished intervals, and increasing severity. Seven and a half hours after the initial attack, temperature 104°, pulse 140, weak and compressible. As hot pack, morphin and chloroform were apparently unavailing, and still no signs of labor, I decided to empty the uterus.

The cervix was not dilated, but dilatable, pressure from above over the fundus rendered the subsequent efforts at dilation easier. Following the method advocated by Philander Harris of New Jersey, with the left hand; then introducing the index and finally the middle finger of the right hand, and exerting steady traction at short intervals, first transversely, then obliquely, and finally antero-posterially. I succeeded in fully dilating in thirty-five minutes. Dehrssen, of Berlin, advocates making deep lateral incisions, but I did not consider it justifiable in this case, on account of the surroundings and the danger of irregular tearing, hemorrhage and subsequent infection. Following rupture of the membranes, and delivery with high forceps, of a dead child, the patient rested quietly for two hours, without, however, regaining consciousness. Then the fingers of her left hand began to twitch spasmodically, followed by a severe attack lasting four and a half minutes. Thirty-five minutes later, the significant twitchings of the fingers which had preceded all the previous attacks recommenced. I immediately administered chloroform, and was gratified to find that it had the desired effect, the fingers relaxed and there were no subsequent attacks.

Since then, the patient has had an uninterrupted convalescence. Twelve hours following delivery, she was perfectly conscious, vision clear, urine contained but a trace of albumen. At the present time, her mental condition is better than it has been at any time during last eleven months.

On looking over my authorities, I find considerable divergence of opinion as to the frequency of this dread disease. Garrigues puts the ratio at 1 in 330; Auvard, 3 in 1,000; Martin and Kaltenbach, 1 in 500; Vinay, 1 in 250 to 260; Gellett, 1 in 357.48. In the Rotunda Hospital amongst 15,109 patients, the relative frequency of eclampsia was 1 in 359.73, i. e., .27%.

Regarding the several periods in which the disease is manifested, and the time in each of these periods Kaltenbach's statement is that while the disease may appear toward the end of pregnancy, it is more frequent in labor; most seldom after it. Pajot has given the following: During labor 100, before, 60, and after, 40. The recent studies of Goldberg including 1,120 cases show that in 21.07% the disease appeared in pregnancy; in labor, 56.34%; after, 22.59%. Bailly gives as the order of frequency: Pregnancy, labor, and the lying-in, and he has attributed the discrepancy among authorities, in part, to the fact that as the disease so commonly induces labor, cases that really belong in pregnancy have been included in those that belong to labor.

Regarding treatment, in the Rotunda Hospital it is directed chiefly toward two points: (1) The arrest of the fits; (2) the staving off of complications, (a) by administering sedatives, (b) by removing toxic substantives from the blood and tissues, (c) by emptying the uterus. (a) is accomplished by the chloroform and chloral treatment, and the morphia treatment. The chloroform and chloral treatment consists in administering upon the onset of the attack 30 grains of chloral hydrate by the rectum, and repeating every two hours until the fits cease, but not more than 3½ drams should be given in 24 hours.

The inhalation of chloroform is commenced as soon as any sign of the onset of the fit occurs, and continues until the fit ceases. The morphia treatment consists of the administration of large doses of morphine hypodermically, as recommended by G. Veit. It is considerably the better method of treatment and is carried out as follows: A half grain hypodermic is administered upon the onset of the first fit, and is followed every two hours by ¼ grain, until the fits cease; not more than 3 grains should be given in 24 hours.

(b) Purgatives are freely used, and every effort made to encourage free sweating. The kidneys are stimulated by hot stupes, and an abundance of fluid by mouth, if the patient is conscious; also by intravenous or subcutaneous injection of normal saline solution.—(Jardine.) At the Glasgow Maternity Hospital, in association with saline infusion, venesection, when possible, is extensively employed. Up to 17 ounces of blood have been withdrawn at one time with very satisfactory results.

In Vienna, in the Universitats-Frauenklinik, we were taught to rely mainly on hot baths, wet packs or hot air baths, chloroform and chloral, and failing in that, to empty the uterus; but the use of morphia was contraindicated. The four cases I saw treated in this manner; unfortunately, all resulted fatally.

Prognosis.—Jellett says: "The prognosis for the infant is always very grave; for the mother the prognosis varies according to the time at which the fits commence. It is worse when the onset of the fits occurs during pregnancy, or labor; it is best when they start during the puerperium. The greater the number of fits the worse the prognosis." The number of seizures may be very great. Kaltenbach refers to 80; Vinay to

more than 100. Winckel has seen but one case of recovery after 18 attacks, but Vinay says that a patient has recovered after 46. Olshausen had six patients who recovered having from 22 to 36. As a rule 10 fits constitute a very serious case.—(Düehrssen.) If the child dies the maternal prognosis is improved. The amount of urine passed and the quantity of albumen in it, the temperature and the condition of the heart and lungs are also important guides.—(Jellett.)

In my case, the points that appealed to me were the recurrence of the eclampsia in the subsequent pregnancy, the large number of attacks in the first—26—with partial recovery; her very critical condition in the second pregnancy after 12 attacks, as shown by the high temperature and the condition of the pulse; the comparative ease with which accouchement force may be employed under favorable conditions; the occurrence of labor in the first case, and its entire absence in the second; also the time of occurrence—7th month in the first attack and 8th month in the second.

Regarding the recurrence of eclampsia, I should be very glad if any member of the Society who is interested in the subject would enlighten me, as the authorities at my disposal do not mention such a contingency.

OSTEOMALACIA.*

By. C. S. STODDARD, M. D., Santa Barbara.

I DESIRE this evening to report a case of this disease which has been under my professional care for some time, not because of any newly discovered mode of treatment, or unusual results of treatment, but rather because it is exceedingly rare, and therefore of interest from a pathological standpoint.

The etiology and pathology of this disease is indeed veiled in obscurity. Its extreme rarity has afforded little opportunity for investigation, and works on pathology, therefore, throw but a dim and uncertain light upon its nature and origin. The most reasonable conclusion at the present day is that it depends upon mal-assimilation of the calcareous elements of the food, while the lime salts, or earthy constituents of bone appear to dissolve, or disappear, under the influence of some morbid process, leaving only the medulla and periosteum as an elastic membranous cylinder, affording little support to the superficial structures, and capable of motion in all directions. The pelvic bones are those most frequently affected, then the vertebræ, and extremities, in the order given.

Observers have found that pregnant women are most liable to the affection, and that partial recoveries, or at least a check in the progress of the disease, may take place between successive pregnancies, each recurring pregnancy intensifying and aggravating the disease, thus giving origin to the idea that the disease was in some way related to the reprcductive process.

Upon this theory, Fehling has recommended the removal of the ovaries as a preventive measure, in all cases appearing during the child-bearing period of life, basing his opinion upon the good results in a number of cases. While very rare on this continent, the disease is met with more frequently in Southern Germany and in Austria than in any other portion of the civilized world. Why this is so, seems undetermined.

We arrive at a diagnosis only after the disease has passed into its second stage and presents its characteristic osseous deformity, viz.: fullness in the contour, or curvatures and angles in the shaft of long bones, resulting from normal muscular contraction. The early symptomatology often leads to the diagnosis of rheumatism, of the muscular variety, or neuralgia, or a dual complication, so closely does it rescmble these diseases.

The anti-rheumatic treatment, however, fails to influence its progress, the tendency of which is to go from bad to worse, until the time arrives when some bony prominence, or deformity, furnishes the key to the mystery, but unfortunately no key to the remedy, and we are still compelled to admit that its etiology and pathology are matters more of theory than of absolute knowledge.

This disease is to be differentiated from rickets, in that rickets is a congenital condition, or one occurring in early childhood, during bone development, while osteomalacia exists generally in adult life after many years of normal activity. It is to be distinguished from osteomyelitis in that the latter consists of an inflammation of the medullary portion of the bone substance and is attended with marked constitutional symptoms, generally traumatic in its origin, and does not result in the deformity peculiar to the former.

In the case under treatment at the present time, the patient is a widow woman of fifty-five years, mother of two children, thirty-four and twenty-six years ago. No history of specific disease; the menopause took place at the age of forty-nine, suddenly, and without any attending ill-health, and she enjoyed a fair degree of health up to two years ago, when she began to suffer migratory pains, intermittent in character, unattended with febrile symptoms or evidence of local lesions, and as it seemed at times, to affect only the superficial muscles, or groups of muscles, at other times to follow the course of the nerve trunks, as the great sciatic, it was diagnosed as muscular rheumatism or neuralgia, as the individual attacks seemed to indicate, and treated accordingly; yet with indifferent, or only temporary results.

Each succeeding attack seemed more and more persistent, and less and less influenced by therapeutic measures, until the patient, almost despairing of help, concluded to try a change of climate, hoping that the dry inland desert climate might prove beneficial. She accordingly went to Johannesburg, California, where she remained for a period of several months. Here her symptoms became more and more intense, until she was compelled to keep her bed and resort almost constantly to anodyne treatment, the pain now confining itself to the right femur, lower third, involving the knee.

After weeks of intense suffering, she was removed on a cot to Los Angeles and admitted to the California Hospital, Dr. George L. Cole taking charge of the case. Soon after entering the hospital it was observed that the right femur presented an anterior curvature, and was capable of considerable motion at the seat of deformity. At this time a number of surgeons were called in consultation and a skiagraph was taken of the femur by Dr. A. Soiland, which I here produce for your inspection.

Skiagraph of Femur.

*Read before the Santa Barbara County Medical Society.

The femur was then drawn down to its normal position and a plaster cast applied. Some weeks later she returned to Santa Barbara and came directly under my professional care at the Cottage Hospital. The cast was worn for a period of two and a half months, and removed; the bone in the meantime having become sufficiently solid to maintain its position, and resist muscular contraction, but presenting a considerable degree of enlargement from the juncture of the middle and lower third, to the knee.

A posterior moulded felt splint was employed for some time thereafter as a safeguard to the bone, when the patient was moved to and from the wheel-chair. For the past four months, very little pain has existed in this bone, which for a time bore the brunt of the disease, but the bones of the left pelvis have shown signs of degenerative change, by tenderness, pain, and swelling over the left sacroiliac juncture, compelling the patient to lie upon the right side continually; the pains migrating from the sacrum to the left femur and to the left fibular region, often appearing suddenly and intensely after many hours of comparative ease.

During these months of suffering there has been a constant loss of weight, until the patient has become very greatly emaciated. The digestive organs have been greatly impaired, nausea and vomiting often interfering with nutrition for days, and the treatment has been symptomatic and palliative, consisting largely in an effort to keep the nutritive powers up to the highest possible standard, and secure rest to the patient as far as possible without resort to morphia, save at intervals of several days when all other remedies failed to relieve.

The prognosis in this case, as in a great majority of these cases existing in the non-puerperal female, is unfavorable.

FRACTURES OF THE ANATOMICAL NECK OF THE HUMERUS WITH REPORT OF A CASE.*

By T. L. LOOFBURROW, M. D., Eureka.

FRACTURES of the head and anatomical neck of the humerus are usually met with in children, no doubt due to the epiphyseal cartilaginous union existing in these parts in childhood; while in the adult fractures of the surgical neck are more common. However, fractures of the anatomical neck are sometimes met with, and are almost invariably due to direct violence. The diagnosis of these fractures is sometimes very difficult except by the aid of the fluoroscope, and even then the cartilaginous union existing in childhood may lead us to a wrong conclusion.

It is a well known fact that impaction of the fragments in fractures of the anatomical neck may and often does occur; we should therefore be very careful in using force or extended manipulation in determining the character of the injury, it being a much safer plan to treat all such injuries, when in doubt, as fractures. Fractures in this locality, as usually met with, are transverse in character, but when impaction occurs we generally have also a longitudinal fracture.

My experience with fractures of the anatomical neck, although limited, is that when impaction occurs union is the rule, and a very useful arm the result, while without impaction, absorption or necrosis of the detached head frequently occurs; union being the rule, however, if the head has been restored to and retained in its proper place on the shaft.

In the treatment, the head of the bone, by careful manipulation, is restored to its proper place, a well fitting axillary pad is applied to prevent the head slipping inward, the whole arm bandaged from the fingers upward to prevent edema, the elbow supported by a bandage which also confines it to the side and a little back of the axillary line and finally a well fitting shoulder cap made of leather, wood-fibre or any material preferred. Frequent passive motion of the elbow, wrist, and fingers should be begun early to prevent stiffening of these joints, but the shoulder should be kept securely immobilized and the bandages continued for at least 5 or 6 weeks, then the cap may be removed and gentle massage and slight passive motion employed daily, re-applying the cap and bandages for at least 2 weeks longer when the elbow may be freed, and voluntary movements begun in about 8 weeks.

*Read before the Humboldt County Medical Society.

The after-effects of these injuries are often very discouraging to the patient, because of the slow, restoration of function, constant aching pain, worse at night and upon the approach of storms, which condition exists for weeks after the apparent union of the fracture. This condition in my experience is best relieved by the use of hot-air, massage, or mechanical vibration and galvanism. Should the patient give a history of rheumatism, a graduated alkaline medication will assist very materially in restoration of function. The case which I wish to report at this time has been of particular interest to me, not only because of the unique way in which the injury was received, but the complications which followed and the result obtained by treatment.

On the 2nd day of September, 1904, Mr. C. B., aged 35 years and very muscular, called at my office with his right arm in a sling complaining of considerable pain in his shoulder. Upon inquiry I elicited the following history: On or about the 1st of January, 1904, the patient, while driving a bunch of cattle across a mountain stream, attempted to throw a good sized rock far out into the water to turn a rebellious steer which was swimming down stream, and in making the effort something appeared to give away in his shoulder and his arm dropped to his side, causing him intense suffering in the shoulder. He immediately went home and in a few days was examined by a physician, who, not being able to detect crepitation, gave it as his opinion that the shoulder was merely sprained and recommended hot fomentations with arnica. The patient seemed to improve slowly until at the end of two months he was able to do some work about the shop, he being a blacksmith by trade.

A few days later while carrying a 5-gallon can of oil he shifted the can to his injured arm, when something again gave away in his shoulder and he was unable to use the arm afterward without causing intense suffering. From that time up to the time he called at my office he suffered a constant aching in the shoulder, worse at night, in fact had not had a good night's rest for 8 months.

He was anesthetized and upon examination I detected crepitation, when I formed the opinion that he had a fracture of the surgical neck and advised him to go to the hospital and undergo an operation for its relief, explaining to him, however, that on account of the age and location of the fracture, caries of the head of the bone might be present and if so currettage or resection would be necessary. Some of his friends not being satisfied requested that an X-ray picture be taken. Nine different exposures were made but the results were not satisfactory; he therefore entered the hospital on September 19th, was prepared in the usual way and at 9 A. M. on the 20th was anesthetized and an incision made extending from the acromion process directly down the arm parallel with the fibres of the deltoid for a distance of 8 inches, the tissues divided to the bone, when the fracture was found to be infracapsular, the capsule being intact. An incision was made through it and about eight ounces of disorganized tissue turned out, the end of the shaft of the bone being in a necrosed condition, the periosteum was stripped off and the bone divided with a chain saw at a point about 5 inches down the shaft. The capsule and what remained of the head of the bone were carefully desected out and the cavity irrigated with 1 to 3000 bichloride solution, drainage provided at the deepest portion, which was behind and to the outer side of the end of the bone, and a second tube inserted at the anterior and lower angle of the incision. The wound was then closed throughout with cat-gut and dressed with gauze pads, the forearm being bandaged across the abdomen. The application of rubber tubing in the axilla and over the clavicle and scapula made the operation practically bloodless; the patient was returned to the ward in a good condition.

The temperature being normal and the patient in good spirits the dressing was not disturbed until the morning of the 4th day when the wound was irrigated with lysol solution and redressed as before. This was repeated daily until the morning of the 7th day, when the arm was found to be somewhat swollen and angry looking, the patient complaining of some pain and restlessness. The temperature being 100°, the wound was irrigated with hot acetozone solution and a hot bichloride compress applied. In the evening of the same day the nurse phoned me that the patient's temperature was 104° and he appeared very nervous. I immediately called, removed the dressing and found the arm greatly swollen and edematous. Believing there must be a pus cavity, I removed a few stitches and opened the wound to the bone when a large quantity of pus escaped. The wound was left open and irrigated with a hot acetozone solution and a hot compress of the same solution covered with rubber-tissue applied to the arm. The next morning the temperature had dropped to normal and the swelling much reduced. This treatment was continued for the next 3 weeks when the patient was able to leave the hosnital and report at the office for dressing. Six weeks after the operation the wound was healed throughout and the patient was contemplating going home when one night, a week later, he was attacked with a heavy chill and when he called at the office the next

morning I discovered fluctuation in the line of incision and being satisfied that the end of the bone had again broken down I sent him back to the hospital and a second operation was done. At this time all the diseased tissue that could be found was removed, the wound left open, and the cavity packed with iodoform gauze.

The patient rallied nicely and everything seemed to be progressing favorably until the morning of the 3rd day when he suffered a severe chill. I therefore removed the dressing, irrigated and repacked the wound, which by the way appeared to be doing nicely and I was unable to account for the chill. The patient passed a very restless night and the next morning upon removing the dressing I discovered an irruption on his shoulder resembling erysipelas, the temperature being at this time 105°. In the afternoon of the same day Dr. Felt saw the patient with me and was satisfied that erysipelas had developed. He was immediately put on iron and quinine, his bowels moved thoroughly and the irruption covered with an ointment of ichthyol and resorcin and covered with oil-silk.

The irruption gradually spread in spite of caustics and hypodermics of carbolic acid around the infected area, until the whole back and down to his knees was involved. The irruption slowly disappeared from above as it spread downward, and the temperature ranged between 101° and 106° until the 14th day of its appearance, when the temperature gradually came down. At the end of the 3rd week the temperature was normal and the irruption had disappeared; the arm in the meantime appeared to do very nicely.

Three days after the disappearance of the irruption from the body, an irruption appeared on the arm in a pustular form, spreading gradually around the limb, this was treated as the other, with the exception that the pustules were cleansed with peroxide. This disappeared in 6 days, leaving the arm pitted as in variola.

From this time on the patient improved rapidly until 6 weeks after the second operation the arm was healed throughout and the patient returned to his home in the mountains very much improved in health, free from all pain, with almost perfect use of the hand and forearm and able to move the arm backward and forward and about 6 inches from the body. Could feed himself very handily and write letters.

A DEFENDER OF SECRET NOSTRUMS.

Last week we were favored by several manufacturing pharmacists with a copy of a letter they had received from the owners of the *New York Medical Journal*. The letter was practically the same in each instance, and evidently was sent to a large number of advertisers (but not to physicians, however, so far as we know). The letter is so unique that we reproduce it (Exhibit A)—not because there is any criticism on a journal asking for opinions of manufacturing pharmacists (for we publish above some opinions which the council itself solicited) but because the owners and not the editor ask for the opinions and because of the suggestions made as to the kind of opinions wanted. It is very much to the point that this letter was sent by the owners and not by the editor of a journal that is presumed to be published in the interest of physicians. Just why the editor's function was usurped by the owners of the journal we cannot understand, but we can readily appreciate why the advertiser's side of the question was recognized as the more important, when we realize that the owners are primarily advertising agents and publish a medical journal as a side line. As evidence of their status we reproduce the letterhead of the firm (Exhibit B). As a further reason for the *pro tempore* editors siding with the advertisers, it should be known that they also own a drug journal, which at one time was recognized as a high-class pharmaceutical publication. Under the present management, however, it has developed a decided leaning toward patent medicine and the Proprietors' Association, and is not pointed out as an exponent of the highest ideals in pharmacy. Furthermore, the owners, as far as we know, do not claim to be pharmacists, and we never heard that they posed as physicians; consequently when they assume to edit a medical journal they are not to blame if they do not see either the scientific pharmacist's side of the question, or the physician's. Then, again, there is more money in a journal with a small circulation and with a large advertising patronage than the reverse, and in such cases it may pay from a financial standpoint to cater to the advertisers. Therefore, taking it all in all, it can be readily understood why the temporary editors temporarily forgot that they were temporarily acting as editors of a journal that, nominally at least, represents physicians and not secret nostrum manufacturers.

There was a time when the *New York Medical Journal* held a high position among medical journals of this country. It stood for the ideal in medicine and for the profession it represented. But that was when it was owned by the Appletons; when Dr. Frank P. Foster was editor in fact, and who, as such, would not have advocated in its editorial pages secrecy in medicine.—*Journal A. M. A., March 25, 1905.*

NEW YORK MEDICAL JOURNAL
AND PHILADELPHIA MEDICAL JOURNAL
A. R. ELLIOTT PUBLISHING CO.
66 West Broadway, N. Y.

New York, March 14, 1905.

Chicago, Ill.

Gentlemen:

Regarding the recent action of the American Medical Association we beg to say:—

Most sane persons are disposed to regard the personal property which their exertions have created as peculiarly their own; and any suggestion that they part with it would probably be treated with derision.

This seems, in essence, to be what the American Medical Association demands in its new rules about proprietary preparations. To comply with the new requirements would be to make your products common property. By furnishing the information demanded you would enable pirates to affirm that their spurious imitations were made in accordance with the published formulas of the association.

Refusal to be mandamused out of your property will result in the exclusion of your advertisement from the association's journal. Also it will exclude you from the proposed book of non-official remedies. Very many others will be excluded for the same reason, and the book consequently will be incomplete.

We therefore offer you space in the New York Medical Journal for a brief expression of your views on this important matter, and shall be very glad to hear from you at your earliest convenience. Very respectfully yours,

A. R. ELLIOTT, President.

(Exhibit A.)

Advertising is to Business what Steam is to Machinery—The Great Propelling Power.—*Lord Macaulay.*

A. R. ELLIOTT—Advertising

Leading Dailies a Specialty

Religious Weeklies	Trade Journals	Country Weeklies
Medical Journals	Illustrated Papers	Juvenile Publications
Fashion Publications	Agricultural Journals	Foreign Publications

Monthly Magazines

☛ I point **YOU** out to the **PUBLIC**

62 to 68 West Broadway, N. Y.

(Exhibit B.)

Druggists' Working Time Limited.

At the last session of the legislature a bill was passed, subsequently signed by the Governor, limiting the hours of employment of those who mix and sell drugs. A maximum of 10 hours per day, or 60 hours in any 6 consecutive days, is fixed as the limit, and the penalty for violation is a fine of not less than $20.00 nor more than $50.00; or imprisonment for not exceeding 60 days; or both. The bill seems to have been prepared in conference between the association of druggists and the association of clerks, and is apparently a good law.

Annual Meeting of the American Proctologic Society.

The seventh annual meeting of the American Proctologic Society will be held at Pittsburgh, Pa., May 5th and 6th. The Hotel Henry has been selected as the place of meeting. The names of men prominent in the profession appear upon the program, which undoubtedly will be a good one.

PUBLICATIONS.

The Ophthalmic Year-Book. A Digest of the Literature of Ophthalmology with index of publications for the year 1903.—By EDWARD JACKSON, A. M., M.D. The Herrick Book and Stationery Company, Denver, Colorado. Price, $2.00 net to dealers, single copies $2.00, less 10%, express charges paid.

The Ophthalmic Year-Book by Edward Jackson is, as he states, a digest of the literature of Ophthalmology with an index of publications for the year 1903. He considers many subjects relative to the eye in their most recent conceptions, quoting from valuable contributions and weighing a number of matters, from his own standpoint, which gives the work an individuality aside from its being a mere review.

It can hardly be termed a book of reference but should be read from cover to cover by every oculist as an interesting and up-to-date discourse. It is almost too technical in its detail for the medical student or general practitioner. L. C. D.

Another Illegal Practitioner Gone.

Dr. Chas. L. Tisdale, Secy.,
San Francisco, Calif.,

Dear Doctor:—Doctor Wm. A. Anderson, who began practice in Imperial over a year ago, was arrested here on March 17th for practicing medicine without a State's License. He was taken to Brawley for his preliminary hearing before Justice Holloway, was ordered under $500 bonds and had his trial set for the following Monday.

He was brought back to Imperial Friday night by Officer Meadows, but in the early morning hours effected his escape. He was traced to Mexicala—just across the line in Old Mexico—where he enjoyed such freedom as fugitives from justice can find on alien soil. It was of short duration, however, for on Sunday night he was lured across the boundary line, was recaptured and taken to Brawley.

Before the hour set for his trial he again made his escape and took to the tall grass for good. What became of him is still an open question—the only thing known for certainty is that he has not shown up in this vicinity since that time. The doctor had come from Georgia, ostensibly for his health, but probably decided that the climate of Southern California was too warm for comfort.

It would no doubt be of interest to the other members of the profession in the State to know of this instance—perhaps a word to one of the leading medical journals would suffice. Very truly,

March 27, '05. F. J. BOLD.

Appointments by the Governor.

On the night of March 9th, the last night session of the Legislature, the Senate was in turmoil. Visitors were in plenty, and they were all over the shop, talking, laughing, jesting, with grave senators and jocular pages; some senators were passing the merry jest with pretty stenographers for the last time of the 36th session. So great was the noise and confusion that the President of the Senate was rapidly being worn out in his efforts to preserve sufficient order to enable the clerk to call the roll for the final passage of bills—the work for which the senators were elected and for which they are paid. Suddenly there appeared a messenger from the Governor announcing appointments, and the change from storm to calm was marvelous! Out of chaos came order, at the magic word, "patronage"! The scene would have been intensely amusing if it had not indicated a phase of politics that is disgusting.

It is a pleasure to note the appointment of the following members of the Society to the positions indicated:

Dr. Walter Lindley of Los Angeles to be a member of the Board of Trustees of the Whittier State School, vice self, term expired.

Dr. Martin Regensburger of San Francisco to be a member of the State Board of Health, vice self, at expiration of present term, March 29, 1905.

Dr. F. K. Ainsworth of San Francisco to be a member of the State Board of Health, vice self, at expiration of present term, March 29, 1905.

Dr. A. C. Hart of Sacramento to be a member of the State Board of Health, vice self, at expiration of present term, March 29, 1905.

Dr. O. Stansbury of Chico to be a member of the State Board of Health, vice self, at expiration of present term, March 29, 1905.

Dr. Wallace A. Briggs of Sacramento to be a member of the State Board of Health, vice self, at expiration of present term, March 29, 1905.

Dr. N. K. Foster of Oakland to be a member of the State Board of Health, vice self, at expiration of present term, March 29, 1905.

Dr. W. LeMoyne Wills of Los Angeles to be a member of the State Board of Health, vise self, at expiration of present term, March 29, 1905.

San Francisco Society of Eye, Ear, Nose and Throat Surgeons.

At the last meeting of the Society of Eye, Ear, Nose and Throat Surgeons, a committee was appointed for the purpose of collecting, among its members, an Ophthalmologic exhibit to be sent to the A. M. A. meeting in Portland this summer.

To make this exhibit one which we will be proud of, it will be necessary for each member to take it upon himself to contribute or assist in procuring material. We desire photographs of anything, pertaining directly or indirectly to the subject, original, modified and new apparatus or instruments, pathological specimens, microscopical slides, etc.

This card is addressed to each member with the earnest request that an answer be returned whether you will be able, or not, to contribute something. Any suggestions that you may make will be appreciated.

Address all communications to Louis C. Deane, 606 Sutter Street, San Francisco.

Respectfully yours,
KASPAR PISCHEL
ADOLPH BARKAN
GEO. BRADY
LOUIS C. DEANE
Committee.

Another Illegal Practitioner Convicted.

A short time ago the JOURNAL received information that a "Dr." Hollister who had for some time been practicing at Halfmoon Bay, San Mateo County, was arrested, tried, convicted and fined $250. This is merely an illustration of what may be done if the physicians of the State, and particularly the County Medical Societies, will devote a little time and energy to the prosecution of this very important matter. Certainly the gentlemen in San Mateo County are to be sincerely congratulated upon their good work.

"Dr." Arons: Information Wanted.

The Secretary has received a request for information as to the whereabouts of a man known as "Dr." W. C. Arons. In all probability he will be advertising extensively, if he is located in the State. He holds himself out to be a "bone setter," and any member of the Society knowing of his whereabouts will confer a favor upon the Secretary by advising him of that fact.

Meeting of Texas State Board of Medical Examiners.

The Board of Medical Examiners for the State of Texas (Regular) will hold its next meeting in Austin, Texas, May 2nd, 3d, 4th and 5th, 1905, for the examination of applicants and transaction of other business. For further information address the secretary, J. T. Wilson, President, Sherman, Tex.; M. M. Smith, Secretary, Austin, Tex.

COUNTY SOCIETIES.

Alameda County.

Following its most excellent custom of previous years, the Alameda County Medical Society gave a dinner, on the evening of April 8th, and invited the officers of the State Society to be its guests. The special feature this year, was that the dinner was given to Dr Frank Adams, the retiring president of the State Society. Good cheer and good fellowship were the only topics permitted discussion, under the rules, and they were well discussed. Dr. Ewer, president of the County Society, presided in a most happy vein. He first introduced the recently elected mayor, Mr. Mott, who was followed by General Girard, Dr. F. B. Carpenter, an ex-president of the State Society, P. M. Jones, C. G. Kenyon, and others; at that point the San Francisco delegation was forced to tear itself away and catch the last boat.

Orange County.

The Orange County Medical Association met in regular session Tuesday evening, April 4th. There was a good attendance; in fact our attendance is on all occasions as good as could be expected. We have 21 members and have an average attendance of 10. There was no regular paper, the time being taken in reports of cases and election of officers.

The following officers were elected for the ensuing year: President, Dr. J. W. Jones of Orange; Vice-President, Dr. Geo. H. Dobson of Santa Ana; Secretary, Dr. H. S. Gordon, Santa Ana; Treasurer, Dr. C. D. Ball, Santa Ana; Librarian, Dr. John L. Dryer, Santa Ana; Delegate to the State Society, Dr. C. D. Ball; Alternate, Dr. F. M. Bruner.

H. S. GORDON, Secretary.

Humboldt County.

The annual meeting of the Humboldt County Medical Society was held in the banquet room of the Needs Building, March 14, 1905, President McKinnon presiding. Drs. Foster, Bryan and Chain of Eureka, and Dr. Cottrell of Fortuna were elected to membership. A vote of thanks was extended to Gov. Pardee for vetoing the Anti-vaccination Bill. It was also decided to send a telegram to the Governor asking him to sign the bill appropriating $150,000 for a State Hospital for the tuberculous poor, but at a later hour it was reported that the bill had already been vetoed and the message was not sent. The secretary's report was read showing a balance of $48.45 in the treasury, and a membership of thirty-nine (39), being practically all the eligible practitioners in the county.

Amendments to the By-Laws, changing the time of the annual meeting from March to January, and raising the annual dues from three to five dollars, were adopted. The change in dues does not become effective until the next annual meeting.

The following officers were elected for the ensuing year: President, Dr. O. W. Sinclair; Vice-President, Dr. G. N. Drysdale; Secretary, Dr. J. H. Mallery; Treasurer, Dr. C. O. Falk; all of Eureka. Delegates, Dr. F. R. Horel of Arcata, one year, and Dr. C. O. Falk of Eureka, two years. Alternates, Dr. J. A. McNaughton of Blue Lake and Dr. G. N. Drysdale of Eureka.

The President appointed the following committees: Program and Scientific Work, Drs. Mallery, Mills and McKibbon; Public Health and Legislation, Drs. Foster, Pryor and C. C. Falk; Entertainment, Drs. Dorias, Loofbourrow and Felt.

Dr. Horel of Arcata read a paper on "Uterine Fibroids Complicating Pregnancy" which was listened to with much interest and was discussed by Drs. C. C. Falk, C. O. Falk, Drysdale, Felt, Sinclair and Horel. Dr. Mallery of Eureka read a paper entitled "A Plea for the Druggist," which was discussed by Drs. Horel, Drysdale, McNaughton, Pryor, McKinnon and P. M. Menefee. Both papers have been sent to the STATE JOURNAL.

Dr. P. M. Menefee of Arcata presented a very interesting case of melanosarcoma of the back, which was examined and discussed by the members generally.

After some general discussion the meeting adjourned in a body to the banquet table, where a very appetizing lunch had been prepared, and the balance of the evening was spent in speeches, stories and paying attention to the repast.

J. H. MALLERY, Secretary.

Ventura County.

The quarterly meeting of the Ventura County Medical Society was held at the residence of Dr. D. W. Mott, Santa Paula. Dr. Mott was the orator, his subject being, "Surgical Emergencies." The subject, as treated by Dr. Mott, was most exhaustively demonstrated, the very latest technic, and resources of the entire surgical domain being elucidated, apposite cases in the author's wide experience as a surgeon being referred to frequently.

The members voted the meeting a success, and extended the thanks of the Society to Dr. Mott.

After the intellectual feast came the feast prepared by Mrs. Mott, the genial hostess, and the viands would have made Lucullus envy the V. C. M. S.

CHARLES TEUBNER, Secretary.

MEDICAL SOCIETIES.

The California Academy of Medicine.

Regular meeting, held February 28, 1905, the President, Dr. Dudley Tait, being in the chair.

Operation for Tuberculosis of a Metacarpal Bone. Dr. Dudley Tait exhibited a patient who had had a tuberculosis of the metacarpal bone of the index finger, the nature of which had been demonstrated before operation by means of an X-ray plate. The diseased bone was excised and a piece of radius was transplanted to take its place. The disease has been eradicated, and the functional result has been fair, the main trouble being that the graft is already somewhat too short and seems to be shortening still more.

Demonstration of X-ray Plates. Dr. Lehmann exhibited a number of X-ray plates, among which was one showing a tumor in the brain. The diagnosis was confirmed at autopsy. Another plate showed several small, dense, sharply outlined spots in the lungs. These were believed to be caused by lung stones. A third plate demonstrated very clearly a number of bronchiectatic cavities in the lungs of a child. Two plates were exhibited of the fourth case. The first showed a large oval shadow in the chest, well above the diaphragm, while the second plate, taken some time later, showed a shadow like that produced by fluid in the pleural cavity. It was believed that when the first plate was taken the patient had had a collection of fluid between the lobes of his lungs, and that this had later ruptured into the pleural cavity, thus giving rise to a pleuritic effusion.

Two Unusual Cases of Gastric Carcinoma. Dr. W. F. Cheney reported two cases of gastric carcinoma, which were interesting because they produced no symptoms referable to the stomach. In the one, a large nodular liver gave rise to the suspicion that the patient had syphilis and later to the diagnosis of carcinoma of the liver. In the other, a large tender mass in the region of the spleen proved at autopsy to be a perigastric abscess. Neither patient had vomited nor had had any other symptom referable directly to the stomach. In both cases, the carcinoma was situated in the fundus.

Drs. Geo. Gross and C. H. Cooper referred to the test for occult blood in the stools as one which might have been of value in these cases.

Dr. J. H. Barbat has seen a case of perigastric abscess. He recommends early operation on cases in which even a fair suspicion of carcinoma of the stomach is present.

Dr. A. W. Hewlett suggested that the reason that so few gastric symptoms were present in these cases was that the carcinomata had not produced an obstruction. The occult bleedings may occur, not only from carcinomata but from ulcers of the stomach or intestines and even from dilated stomachs.

Dr. Cheney stated that great care must be taken with the diet before placing any reliance upon the tests for occult bleedings, since the blood may come from the food eaten. He also believed that an exploratory operation should be done whenever a fair suspicion of carcinoma of the stomach exists.

Bicornate Uterus. Dr. Geo. Somers reported two cases of bicornate uterus. In one the condition was suspected from the fact that on curettement the instrument passed into two distinct sacs at the apex of the uterus. Removal of the uterus for disease of the appendages confirmed this suspicion. In the second case the diagnosis of myomata was made and operations showed two uterine bodies united below into one cervix. The history of this patient is of interest, firstly because she menstruated about twice a month ever since the birth of her first child, and secondly, because the second pregnancy seemed to be different from the first. She enlarged distinctly to the left side, she suffered from considerable pain, and the pregnancy was terminated by a still birth at term. Apparently the right uterus was impregnated in the case of the first child and the left in the case of the second.

Intestinal Obstruction from Meckel's Diverticulum. Dr. Emmet Rixford demonstrated a Meckel's diverticulum which had been the cause of an intestinal obstruction in a child. The diverticulum had attached to it a piece of fibrous tissue resembling a mesentery.

A. W. HEWLETT, Secretary.

Redlands Medical Society.

The March meeting of the Redlands Medical Society was held in the Y. M. C. A. parlors in Redlands on the afternoon of the 15th inst. There was a full attendance of members. Among the visitors were Drs. M. M. Hooton and H. M. Haskell, of Redlands; Dr. J. W. Wilson, of Iowa; Dr. W. R. Davidson, of Indianapolis, Ind.; Dr. C. H. Alden, U. S. A. (retired), and Dr. R. S. Gibbs, of San Bernardino. After the reading of the minutes of the last previous meeting, the President, Dr. Sanborn, called attention to the fact that the third Wednesday in April, the date for the next meeting of the Society, would fall on the 19th, on which date the State Medical Society would be in session in Riverside. Accordingly, a motion to postpone the April meeting until the date of the next regular meeting was adopted. The name of Dr. H. M. Haskell was proposed for membership and was referred to the Board of Censors.

The paper of the day was by Dr. Hoell Tyler, his subject being "Heredity and Continuity of Life." This was a carefully prepared and interesting essay, dealing with the theme mainly from the standpoint of cytology. A general discussion ensued, after which the Society adopted a motion expressing its desire that the paper be published.

Dr. Tyler exhibited a male patient, about 50 years of age, suffering from pulmonary tuberculosis, in whom there was also enlargement of the liver, with symptoms of biliary and portal obstruction. The case was examined and was commented on by most of those present, some expressing the opinion that the abdominal conditions were secondary to the pulmonary tuberculosis, while others thought that malignant disease or hypertrophic cirrhosis of the liver was the primary trouble in the abdomen.

Dr. Tyler also reported the case of a female patient, 59 years of age, who had died of an obscure ailment. A postmortem examination disclosed no adequate cause of death unless it might be a peculiar, hard capsulated tumor, a little smaller than a baseball, apparently springing from the peritoneum between the spleen and the left kidney. The tumor was examined microscopically and reported to be a spindle-cell sarcoma.

WM. A. TALTAVALL, Secretary.

COMMUNICATIONS.

Cheap Insurance Examinations.

To the Editor of the STATE JOURNAL:—I should be glad if you would kindly mention in the JOURNAL that Placer County is out against the New York Life and kindred companies who only allow $3 for examinations. At present the above said companies have no examiners in Placer and Nevada and are now talking of importing an examiner from the outside. This, of course, we cannot prevent. But the members of the Society here have made a firm stand against the $3 examination and desire the support of other medical societies. Dr. R. A. Peers of Colfax has refused to examine applicants, and Auburn is without an examiner. Dr. Peers and the Medical Society do not object to any physician coming to Colfax to examine for the New York Life provided that the physician charges mileage and the prescribed fee of five dollars.

The thin end of the wedge has entered and the Society proposes to drive home the thick end. To do this we require the aid of all members of the State Medical Society and the best aid they can give us is to refuse to come to Placer and Nevada Counties under the prescribed fee of five dollars and mileage.

Truly yours,
J. H. MULES,
Sec. Placer Co. Medical Society.

Necessary Work in Politics.

To the Editor of the STATE JOURNAL:—Relating to your editorial "Thank God" in April issue of CALIFORNIA STATE JOURNAL OF MEDICINE you say "let us be thankful, that we do *not* have to be watchful for another two years," etc. Now that is just where we make a mistake; the wily politician works all the time while the self-complacent citizen sits idly by, and without any effort on his part to prevent, sees some of the worst men possible sent to the legislature, and after they get there, the above mentioned citizen simply gets up and howls.

A doctor particularly yields a wide-spread influence, and would he only exert it, at a time when it would do the most good, "at the primaries," the glow of satisfaction, at having done his duty to his state, would be sufficient recompense and not the least hurtful to his dignity and reputation.

I took occasion not long ago to demonstrate this to my own satisfaction, and was simply amazed at the good results. Yours fraternally,

April 5, 1905. WM. HIMMELSBACH.

Ample Cause for Death!—Upon inquiring into the circumstances of a death the following reply was received: "The cause was Brain fever. It set in 28 hour after delivery mildly but in 48 hour had assumed gigantic proportions. Partial Paraphegin of Brain, Bowels and womb. the inerSide of womb was so great that it Resided down but very little up to her Death. Profound Como or Stupur was Present all the time after Spinal fever set in. the Prognosis was unfavorable with us almost from the beginning. There was no Lochia discharge after third day."—*Am. Medicine.*

CALIFORNIA: SOME WORDS OF TRUTH.

For the healing of the "ills to which flesh is heir," California has over two hundred mineral springs of known excellence, and health resorts too numerous to be here even catalogued. They are distributed over the whole State and under climatic conditions so beneficent and so general as to make the State itself a health resort. The serene skies and atmospheric peace, the absence of "winter and rough weather"; the dry air of the cloudless summers; the breath of pine forests that are never damp, and the salt air of a sea whose habit is not stormy, have made California a Land of Health. No other country in the world with such range of latitude can show such climatic unity. There is a sea climate and a land climate, but save as modified by nearness to the ocean or by elevation in the mountains, the climate of the State is one. Lines of latitude hardly count. Oranges ripen in the upper Sacramento valley as finely as in the groves of San Diego, 600 miles south; and the summer sojourner about Lake Tahoe or Mount Shasta finds the same temperature that he would find at a like elevation in the mountains of Southern California.

And not even the countries which border the Mediterranean, where the same physical causes operate to produce a genial air, can show winters so mild, or summers so dry, or so free from cold and irritating or hot and enervating winds, as in California. Winter shows a green world, and makes all the land save in the high mountains a miracle of color. There are rainy days and days of storm, but there are weeks of sunshine, and sunshine when it comes is not an intermittent escape from objecting clouds. The skies are blue, the atmosphere cleansed and all the air radiant, equable, hygienic, rejuvenating. Summer is everywhere dry, and though in the interior it may be hot at noon, the absence of moisture produces a rapid evaporation, reduces bodily temperature, and makes sunstroke a thing unknown. Then, too, the dry atmosphere provides for rapid radiation from the surface of the earth at night, quickly dissipates the heat of the day, and insures cool and refreshing hours for sleep.—A. J. WELLS.

* * * *

California cannot be measured by the same yardstick with which we measure other states and countries of the world. Whoever attempts to do such a thing will soon find himself at a loss as to how he shall proceed, and will finally come to the conclusion that here is a land distinct and apart from all others—one that must be judged entirely by itself. In its climate, its products, and in nearly everything else, California stands apart. Even in its transportation facilities this "Land beyond the West" is altogether unlike any other state.

The traveler in California will not only find many of the best features known to transportation anywhere, but he may also enjoy more unique and interesting features than he will be able to find in any other state in the Union. Not alone may he traverse the valleys in the luxurious cars of transcontinental flyers, but he may travel on scenic roads that wind picturesquely up rugged mountains; he may make memorable trips through dark redwood forests on rushing lumber trains; speed over the smooth waterways on fine steamers, or go down to cities by the sea on swiftly flying electric cars.

Within a few miles of San Francisco the traveler will find a most interesting bit of railroading. The Mount Tamalpais Scenic Railway is famous as "the crookedest railroad in the world," and it deserves its title. Winding up to the mountain's crest, from which splendid views may be had of all the surrounding country—the harbor of San Francisco, the city and its environs—this railroad makes such a lot of bewildering turns that the traveler cannot help but realize that here is something distinctly out of the usual. Then there is the road up Mount Lowe, but a short distance from Los Angeles, which takes one up a steep incline, more as a "lift" than as a railway, to the Swift Observatory and Alpine Tavern, thousands of feet above sea level. The famous Tehachapi Loop of the Southern Pacific Company is still another interesting feature in railroading to interest the traveler.

But travel in the Golden State is not confined to rail. California has particularly fine waterways. The San Joaquin and Sacramento rivers drain the greater portion of the State, the latter being open to navigation for a distance of two hundred miles. The Bay of San Francisco is one of the largest and finest in the world, and all sorts of craft plough its waters.

Staging in California is not today what it was years ago, before the shining steel of the railroads was laid up and down the broad valleys and over the mountains. Yet even now the traveler may experience something of that which made the glory of the "other day." The most famous stage lines in California, and perhaps in the world, are those from Raymond and Merced to the Yosemite Valley. One there finds the good old-time stage coaches, the dashing teams and the skillful drivers told of in the narratives of other times. The stage roads are oiled during the summer season, and a ride over them is counted one of the finest trips in the State. Raymond is the Southern Pacific's route to the great valley, the Santa Fe reaching Yosemite from Merced by an interesting stage line which passes en route the Merced big trees.

All these things give piquancy to travel in California, and make the traveler realize that the State is unique even in its transportation.

The traveler who comes to California by rail has a wide choice of routes. The Atchison, Topeka & Santa Fe Railroad enters the State at its southern door. The Grand Canyon of Arizona, the cliff dwellings and the petrified forests are on the line of this railroad, and are so much a part of the sight-seeing of a California trip that they may be properly mentioned in this article, although they occur a little before crossing the California line.

The Southern Pacific Company reaches the State by three routes. The Shasta route enters California from Portland, Oregon, across the Siskiyou mountains, through some of the finest scenery in the world. Indeed, this is a great scenic route, and many a traveler has looked out upon the heavily-wooded mountains and the dark gorges, and felt his heart stir within him long before the train, rushing down toward the sunny valley of the Sacramento, bore him into view of hoary, majestic Mount Shasta. The Ogden route brings one into the State across the Sierra Nevadas, through a wonderland of grand views, from Lookout Mountain to famous Cape Horn. The Sunset route comes in from New Orleans via Yuma, through the same great southern gateway utilized by the Santa Fe. Both companies afford the traveler everything that is up to date and luxurious, and their trains are reckoned among the finest in the world. At one time it was a long distance from the East to California, but today it does not seem so far. The trip that took the pioneers so long to make "across the plains" is now but a matter of hours. Three days from Chicago will land one at San Francisco.

California has an area in square miles larger than the combined areas of New York, New Jersey, Vermont, Maine, New Hampshire, Connecticut, Ohio and Massachusetts. There are thirty-five steam roads operating in the State today, with a total mileage of about six thousand. Many of these are held by lease or otherwise, so that they form part of the two principal railroads of California—the Southern Pacific and the Santa Fe. The Southern Pacific is the pioneer line, being practically California's first railroad, the present company having grown out of the Sacramento Valley road and the Central Pacific. The first railroad connecting California with the East was started at Sacramento in 1863, and was built through the rocky barriers of the Sierra Nevada mountains.

The principal railroads in California at present are the lines through the San Joaquin and Sacramento valleys, the coast lines and the lines in Southern California. These cover the greater portion of the State and afford the traveler transportation facilities to nearly every point to which he may want to go.

Let us suppose that the traveler enters California by the Shasta route. After crossing the Siskiyou mountains at the northern end of the State and passing Mount Shasta, he is brought down the canyon of the Sacramento river to the head of the great Sacramento Valley. When the traveler arrives at this point he is at the northern end of the great interior basin of California, and just about to enter one of the great agricultural sections of the State. And there at the head of the valley he will be confronted by the question of routes. The main line branches here, one branch swinging away through the rich farming country on the west side of the valley, while the other follows the course of the Sacramento river, branching again before the lower end of the valley is reached. By these lines the traveler can reach any part of the Sacramento valley, and by still other branches turn aside into the rich foothill districts. The Ogden route of the Southern Pacific comes into the Sacramento valley at its lower end, and both of these lines join it and take the traveler to San Francisco.

Both the Southern Pacific and the Santa Fe enter the San Joaquin valley at its southern extremity, coming in over the Tehachapi mountains on the same track. The former has two main lines the entire length of the valley, while the Santa Fe has two main lines for over half the distance. All the principal cities in the San Joaquin valley are connected by these lines, and there are several loop lines and branches which tap outlying sections. One of the Southern Pacific's branch lines reaches Raymond, the point at which travelers take stage for Yosemite Valley and the Big Trees. The Yosemite route of the Santa Fe is from Merced, on its main line.

Just as the rivers which drain this great interior basin turn at last and flow into San Francisco bay, so do all these various lines of railroad make their way to the western edge of the State until, broadly speaking, they enter San Francisco at the same point. The Santa Fe line terminates at Point Richmond and Oakland, and the lines of the Southern Pacific at Oakland, both places being just across the bay from San Francisco.

San Francisco being the principal city and main seaport of the Pacific Coast, constitutes the objective point for transportation lines. The traveler will find it easy to leave San Francisco in any direction which he may want to go. Besides the lines just spoken of, there are other roads which come into San Francisco. The California & Northwestern runs from San Francisco a distance of some two hundred miles northward through the fertile Sonoma and Russian River valleys, bringing the traffic of those rich sections to the metropolis. There is a coast line of the Southern Pacific system running down the San Francisco peninsula. The North Shore Railroad passes north through picturesque Marin county, and will carry the traveler to the immediate north coast. The Mount Tamalpais Scenic Railway connects with this line, and gives the traveler the unusual experience of its wonderful, winding route.

The traveler will see ships of all nations in the great harbor of San Francisco, and perhaps may note, in-coming or out-going, the great liners of the Pacific Mail, the Occidental & Oriental, or the Oceanic steamship companies, bound to or from China, Japan, Hawaiian Islands, the Philippines or Australia. Or he may note the steamers of the Pacific Coast Steamship Company, which reach all the ports of the Pacific coast, Central and South America, and Alaska. Here, too, he may see other steamers leaving San Francisco for Alaska, Cape Nome and other northern points, and may also notice on the bay the river steamers from the San Joaquin and the Sacramento. All the railroads which enter San Francisco have fine transfer steamers on the bay, so that the traveler finds no difficulty in crossing at any hour he wishes.

The traveler may go from San Francisco to Los Angeles by two routes. The Southern Pacific will take him by its coast line "the way of the missions," and either the Southern Pacific or the Santa Fe will carry him by the other route, through the San Joaquin valley. The coast line covers the country from San Francisco to Los Angeles, with many loop lines and branches, and affords the traveler a chance to visit all the important places along the coast for that distance. The main line goes south down the San Francisco peninsula, while a broadgauge and a narrowgauge line leaves Oakland and Alameda, respectively, and reach San Jose, in the heart of the Santa Clara valley, via the east side of the bay. The narrowgauge runs west to Santa Cruz, while the main line continues southward. One of the most important branch lines is the line that runs out of Castroville, reaching famous Hotel Del Monte, Monterey and Pacific Grove. From Castroville the main line takes the traveler to Paso Robles, San Luis Obispo, Santa Barbara and then to Los Angeles.

The city of Los Angeles is another objective point for transportation, and it is here that all the lines of Southern California converge. The Sunset route of the Southern Pacific comes to Los Angeles, and the Santa Fe reaches it by the Southern California Railroad, which is a part of its system. By this latter line the traveler may reach San Diego, and all that portion of the State which lies along the coast immediately south of Los Angeles. It also reaches Coronado Beach and many other famous resorts.

The Santa Fe in Southern California has many attractive trips to offer, but swinging around the "Kite-shaped track" is the one that appeals to those who desire to get a glimpse of the most characteristic scenes in the shortest time. It embraces a ride over one hundred and sixty-six miles of railway through scenes which illustrate the beauties of Southern California. It is unique in the fact that not one mile of the trip is duplicated, and at only one point, San Bernardino, where the two lines cross, is the same scene twice viewed. It begins and ends at Los Angeles, and may be traveled either going via Pasadena, returning via Orange, or vice versa. The more popular way is from Los Angeles through the Arroyo Seco to Pasadena, Santa Anita (Baldwin's ranch), Monrovia, Azusa, Upland, North Cucamonga, Rialto, San Bernardino, Redlands, Mentone, Highland and Arrowhead; Colton Riverside, Corona, Santa Ana canyon, Orange, Fullerton and La Mirada, back to Los Angeles. It can be made in a day. The drive or electric car ride either to Smiley Heights in Redlands, or down Magnolia and Victoria avenues at Riverside, will well repay any person desirous of viewing these beautiful places.

The "inside track" of the Southern Pacific covers a large portion of the country southeast of Los Angeles, and will take the traveler to Riverside, San Bernardino, Pasadena and other places in the heart of the orange district.

The San Pedro, Los Angeles & Salt Lake Railroad, the new Clark line, is only partially completed at present, but will be finished soon. This line will certainly be an important factor in the transportation development of Southern California. It will extend from San Pedro to Los Angeles, and thence across the Mojave desert to Nevada. When this line has been completed the traveler will have still another route into California.

The southeastern part of the State is reached by the Carson & Colorado Railroad, a line in the Southern Pacific system which enters at the town of Queen and runs to Keeler, on the edge of Death Valley. This line gives transportation facilities to Mono and Inyo counties, and to the Tonopah mining district of Nevada.

The traveler who goes north of San Francisco to Humboldt and Del Norte counties will find few railroads, and those principally private lines owned by lumber companies. The most important of these are the Eureka & Eel River Valley Railroad, now owned by the Santa Fe; the Arcata & Mad River Railroad, and the Eureka & Klamath Valley Railroad. The large transportation companies of California are alive to the fact that this section is a very rich one, and it will not be long before there will be many roads throughout these northern counties.

One of the things which will appeal to any traveler in California is the service afforded by electric lines. The last few years have witnessed a deal of activity in this direction. Every large city in California is now the center of a network of electric lines. To a certain extent these electric roads have revolutionized local transportation in many parts of the State. There are fine electric lines in the Santa Clara valley, and in all the most important parts of the San Joaquin and Sacramento valleys. The electric lines in and around Los Angeles give that city an unexcelled suburban service. These lines reach all the important towns near Los Angeles, and compare most favorably with the best Eastern lines. The rails and cars are heavy, and the time made is exceptionally fast. Many new lines are being built throughout California, and every existing electric railway company is constantly broadening and extending its service.

ELWYN HOFFMAN.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Ballance, Wm. P., from 819 Market st., San Francisco, to 11 Fifth st., Eureka, Humboldt Co. **Bold, F. J.**, from add. unknown to Imperial, San Diego Co. **Buchanan, Robert A.**, from 305 Larkin st. to 1436 Market st., San Francisco.

Castle, Curtis H. from Dinuba, Tulare Co., to Merced. **Clark, J. Emmet**, from M. E. Church Block to 2264 Central ave., Alameda. **Cottrell, E. L.**, from add. unknown to Fortuna, Humboldt Co. Crease, H. George, from (p. 70) Eureka, Humboldt Co., to Santa Ana, Orange Co. **Crothers, W. H.**, from 819 Market st. to 313 Parrott Bldg., San Francisco. Hours: 1:30-4 and 7-8 P. M.

Finney, Wm. N., from Sacramento to Lincoln, Placer Co. Foster, R. de L., from 1041 Sixth st. to 401-406 Granger Blk., San Diego. Hours: 10 A. M. to 12 M. and 2-5 P. M.

Galbraith, A. M., from San Lucas, Monterey Co., to Haywards, Alameda Co. Gwaltney, Sylvester, from 1617 Beacon st., San Pedro, to Mason Bldg., Los Angeles. Hours: 9 A. M. to 12 M.

Harper, C. W., Redding, gone East.

Joyce, E. Frances, from 1025 Steiner st., San Francisco, to Sonora, Tuolumne Co.

King, Jos. M., from 217 S. Broadway to 324 Douglas Bldg., Los Angeles. **Kitchings, J. T.**, from 906 Clay st. to N. W. cor. Twelfth and Jefferson sts., Oakland. Hours: 1:30-4 and 7-8 P. M.

Lorentzen, H. L., from 1031 McAllister st., San Francisco, to Petaluma, Sonoma Co. Hours: 2-4 and 7-8 P. M. **Lux, Fred W.**, from Mills Bldg. to James Flood Bldg., San Francisco.

Morrison, H. K., from add. unknown to Bakersfield, Kern Co.

Nuckolls, Wm. L., from Petaluma, Sonoma Co., to Kingsburg, Fresno Co. Hours: 10 A. M. to 12 M. and 1-4 and 8-9 P. M.

Osler, Charles, from Oakdale, Stanislaus Co., to Tuolumne, Tuolumne Co.

Page, Clarence, from add. unknown to Calistoga, Napa Co. Hours: 1-3 P. M.

Stirling, Charles, from San Leandro, Alameda Co., to St. Margaret's Sanitarium, Mayfield, Santa Clara Co. **Stirling, Marion.** from San Leandro, to St. Margaret's Sanitarium, Mayfield, Santa Clara Co. **Stratton, Robert T.**, from 1169 Broadway to 913 Market st., Oakland.

Thompson, J. E., from 751 Sutter st. to James Flood Bldg., San Francisco. Hours: 11 A. M. to 4 P. M.

Van Tassell, F. H., from add. unknown to Sonora, Tuolumne Co.

Wahl, Hugo A., from 415 Turk st. to 510 Ellis st., San Francisco. Weddle, Charles, from Kingsburg, Fresno Co., to Dinuba, Tulare Co. **Williams, Annie W.**, from Palmtag Bldg., Haywards, Alameda Co., to Hollister, San Benito Co. **Winterberg, W. H.**, from 813 Sutter st. to 1208 Van Ness ave., San Francisco. Hours: 3:30-5:30 P. M.

New Names.

Chain, John N., Eureka. Med. Dept. University of California '04. (C) '04.

Lampert, L., (E.) Eureka, Humboldt Co. Eclectic Medical College, New York, '96. (C) '97. Hours: 10 A. M. to 12 M. and 2-6 P. M.

Mayne, Wm. H., 223 Huntington Bldg., Los Angeles. Med. Dept. University of Southern California, '00. (C) '01. Hours: 10-11 A. M., 12 M. to 2 P. M. and 4-5 P. M.

Roberts, Wm. Henry, Groveland, Tuolumne Co. Hahnemann Medical College, San Francisco, '84. (C) '84.

New Members.

Bryan, E. H., Humboldt Co. Med. Soc.

Card, Egerton F., San Francisco Co. Med. Soc. **Chain, John N.**, Humboldt Co. Med. Soc. **Congdon, Chas. E.**, Tuolumne Co. Med. Soc. **Cottrell, E. L.**, Humboldt Co. Med. Soc.

Emerson, H. K., Los Angeles Co. Med. Soc.

Fales, Louis H., Humboldt Co. Med. Soc.

Gale, John A., Tuolumne Co. Med. Soc.

Holbrook, Geo. Story, Tuolumne Co. Med. Soc.

Joyce, E. Frances, Tuolumne Co. Med. Soc. **Judell, M. I.**, San Francisco Co. Med. Soc.

Mayne, Wm. H., Los Angeles Co. Med. Soc. **Morrison, H. K.**, Kern Co. Med. Soc. **Musgrave, Robt. W.**, Kings Co. Med. Soc.

Osler, Charles, Tuolumne Co. Med. Soc.

Roberts, Wm. Henry, Tuolumne Co. Med. Soc.

Spencer, J. F., Los Angeles Co. Med. Soc. **Stratton, D. E.**, Tuolumne Co. Med. Soc.

Whitsitt, Francis H., Kern Co. Med. Soc.

Died.

McAdams, R. J., Pasadena.

Wilson, Alexander L., Tulare.

RESULT OF EXAMINATION HELD APRIL 4th 5th, 6th.

PASSED.

Coll. P. & S., S. F., Cal., 1904—75, 80$\frac{2}{9}$; 1905—79$\frac{1}{9}$, 80$\frac{1}{9}$, 75$\frac{8}{9}$.

Cooper Med. Coll., Cal., 1904—82$\frac{2}{9}$, 82$\frac{1}{9}$, 82; 1905—88$\frac{2}{9}$.

Hahnemann Med. Coll. of the Pac., Cal., 1903—75$\frac{4}{9}$; 1904—81$\frac{5}{9}$.

Univ. of Cal., Med. Dept., 1904—88$\frac{3}{9}$, 83$\frac{5}{9}$, 81$\frac{1}{9}$, 79$\frac{1}{9}$.

Albany Med. Coll., N. Y., 1892—82$\frac{5}{9}$.

Am. Med. Missionary Coll., Ill., 1904—84$\frac{1}{9}$.

Coll. of P. & S., Ill., 1902—76.

Coll. of P. & S., Edinburgh, Scotland, 1893—80$\frac{3}{9}$.

Coll. of P. & S., N. Y., 1902—87$\frac{3}{9}$.

Faculty of Med., Paris, France, 1905—86$\frac{3}{9}$.

Harvard Univ., Mass., 1898—77$\frac{7}{9}$.

Howard Univ., Med. Dept., 1896—80$\frac{3}{9}$.

Jefferson Med. Coll., Pa., 1885—84$\frac{2}{9}$.

Johns Hopkins Med. Sch., Baltimore, Md., 1899—82$\frac{3}{9}$.

Ky. School of Med., Ky., 1885—76$\frac{5}{9}$.

Marion-Sims Beaumont Coll. of Med., Mo., 1903—83$\frac{3}{9}$.

Northwestern Univ. Med. Sch., Ill., 1890—83⅝; 1901—89; 1903—80⅝.
Rush Med. Coll., Ill., 1903—87⅜.
Trinity Univ., Canada, 1904—80⅜.
Univ. of Georgetown, D. C., 1898—75⅜.
Univ. of Mich., 1901—75; 1902—87⅜.
Univ. of Minn., 1901—78⅜.
Univ. Med. Coll. of Mo., 1904—75⅛.
Univ. of Vt., 1904—77⅛.
Wash. Univ., Mo., 1903—75.

FAILED.

Coll. P. & S., S. F., Cal., 1905—71⅝; 1904—72⅞.
Cooper Med. Coll., S. F., Cal., 1903—70⅛.
Hahnemann Med. Coll. of the Pac., Cal., 1903—68⅛.
Univ. Southern California, 1904—57⅜.
Am. Med. Missionary Coll., Ill., 1900—67⅝.
Bennett Med. Coll., Ill., 1895—51⅜.
Central Coll. P. & S., Ind., 1886—64⅞.
Coll. of P. & S., Ill., 1901—68⅜.
Harvard Univ. Med. Sch., Mass., 1887—68⅛.
Hering Med. Coll., Ill., 1897—63⅝.
Ky. School of Med., Ky., 1890—43⅝.
Laura Memorial Woman's Coll., Ohio, 1903—62.
Long Island Coll. Hosp., N. Y., 1885—63⅛.
Rush Med. Coll., Ill., 1880—42.
Univ. of Mich., Med. Dept., Mich., 1872—43⅜; 1892—57⅜.
Univ. of Penn., Dept. of Med., Pa., 1899—64⅛.

Coll. P. & S., S. F., Cal., 1904—2 passed; 1 failed; 1905—3 passed; 1 failed.
Cooper Med. Coll., Cal., 1903—0 passed; 1 failed; 1904—3 passed; 0 failed. 1905—1 passed; 0 failed.
Hahnemann Med. Coll. of the Pac., Cal., 1903—1 passed; 1 failed. 1904—1 passed; 0 failed.
Univ. of Cal., Med. Dept., 1904—4 passed; 0 failed.
Univ. of Southern California, 1904—0 passed; 1 failed.

New Licentiates.

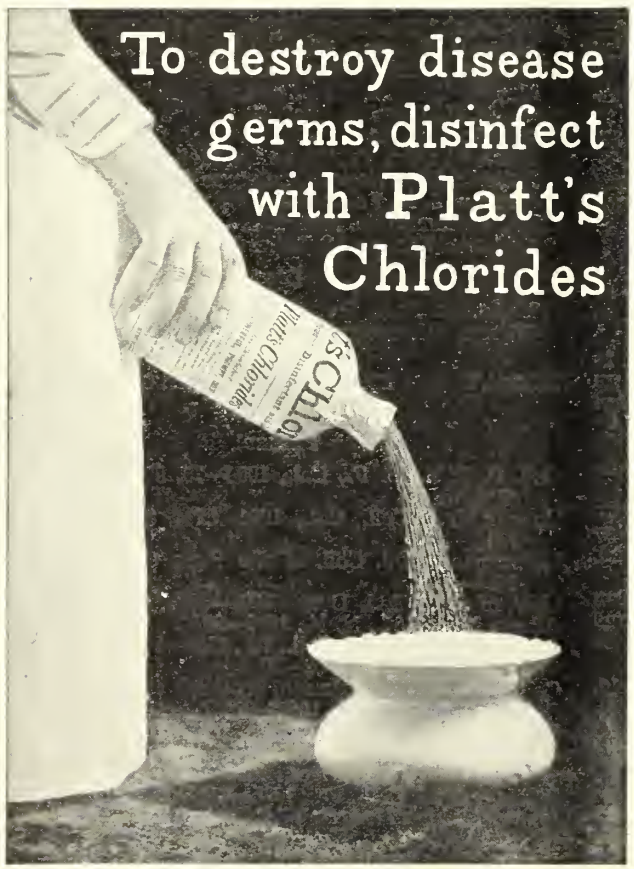
The following candidates were granted certificates: Adams, Jesse Lee, Jr.; Avery, Ralph W.; Balsiger, J. A.; Baumeister, E. E.; Bissell, Nelson C.; Blackman, Ernest L.; Brinkerhoff, Emilie; Carvin, C. LaVerna; Castlehun, Paul; Chappelle, C. C.; Davis, Frank C.; Davis, T. G.; Dawson, Thos.; Diddle, J. F.; Erb, C. M.; Fisher, Jas. T.; France, R.; Gibbons, Sherman S.; Hatton, Sarah J.; Kearney, W. B.; Linscott, Louise A.; Luton, Geo. R.; MacLafferty, N. C.; Martin, E. E.; Mead, L. D.; Newell, Edw.; Oldham, John T.; Palamountain, W. B.; Richardson, W. W.; Ricon, Joseph; Sandholdt, John P.; Saylor, B. F.; Simon, Ernest G.; Simpson, James; Thompson, E. H.; Thorpe, T. F.; Tourtillott, W. W.; Wiley, E. H.; Wilson, J. M.

Commends Dr. Bates' Paper.

EDITOR *N. A. R. D. Notes:*—I wish a marked copy of *Notes* containing Dr. W. E. Bates' article on "The Dangers of Proprietary Medicine Prescribing" could be sent to every physician in the country.

Dr. Walter E. Bates' paper on "The Dangers of Proprietary Medicine Prescribing" was originally read before a medical society in California and afterwards published in the CALIFORNIA STATE JOURNAL OF MEDICINE. Its publication in *Notes* last week has created a profound impression upon pharmacists and is sure to lead to constructive work having for its slogan: "Back to U. S. Pharmacopoeia and the National Formulary."—*N. A. R. D. Notes.*

At the last regular meeting of the California Academy of Sciences, held on Monday evening, April 17th, Dr. Louis C. Deane delivered a lecture entitled "Popular Fallacies Concerning the Eye." The lecture was interestingly illustrated with lantern slides.



IN an address on Pulmonary Tuberculosis read at the State Medical Association, Waco, Texas, Professor David R. Fly, A.M., M.D., stated: "The chief medium of contagion is the atmosphere impregnated with dry particles of sputum expectorated upon sidewalks, flooring, bed or clothes, etc. It is obvious, then, that those engaged in making beds, sweeping and dusting rooms occupied by tuberculous patients, are most exposed. This danger, however, can be materially lessened by sprinkling the rooms with a solution of Platt's Chlorides, one part to ten of water."

The cuspidor should be washed out daily with boiling water, and a mixture of one part Platt's Chlorides and four of water kept constantly in it to receive the sputum. The patient's clothing should be kept by itself, and thoroughly boiled when washed.

FORMULA—A combination of the saturated solutions of Chloride Salts proportioned as follows: Zn 40 per cent., Pb 20, per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent. K 5 per cent.

California State Journal of Medicine.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten.
Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. III JUNE, 1905. No. 6

A. M. A. Meeting, Portland, July 11th to 14th. We have just received every assurance from the Committee of Arrangements that ample accommodations at reasonable rates are to be had, and the Committee guarantees that there will be no extortion.

EDITORIAL NOTES.

THE COUNTY SOCIETIES.

The House of Delegates, at the recent meeting of the State Society, acted on some matters of considerable importance to county societies, and these should be given careful consideration. The By-Laws were amended so as to make the fiscal year of the Society from January 1st to December 31st, in order to simplify the business. The assessment upon component societies no longer covers a period of from one meeting to the next, but will be for the given fiscal year, will be due in January, and *must be paid before the first of April.* The official membership for any year shall be the actual membership, in good standing, on the 1st day of January of such year. In other words, the By-Laws, as they now stand, require that each county society secretary shall make his annual report of membership as early in January as possible, and in that report shall give the *actual membership on the first day of January.* Proper blanks will be issued by the secretary of the State Society, for making these reports. The assessment was fixed by the delegates at $2.00 per member for the year 1906, so that every secretary of a component society will know exactly the amount of the assessment of his society for that year ($2.00 for each member on the roll on January 1st, 1906), and this amount should be sent in with the list of members, or as soon thereafter as possible. These changes were made in order to systematize the business of the Society, which is now considerable, and is rapidly growing and expanding. All members should bear in mind the fact that in order to conduct the business of the Society in a proper manner, every detail must be looked after, and the work must be systematized.

ELECTION OF OFFICERS.

The House of Delegates also passed a resolution earnestly requesting all component societies to elect their officers and delegates in December or January; preferably December. This is simply in line with the general movement to straighten out details. If the fiscal year of the State Society is from January to December, it will be a great convenience to have the fiscal year of county societies correspond; or at any rate, to have the term of office of the officers of such societies conform thereto. For instance, take the matter of compiling the list of delegates to the State Society: Some component societies now elect their delegate or delegates as late as April, and consequently the list of delegates cannot be made up and closed until just a few days before the time for the annual meeting. The secretary of the State Society therefore adds his plea to that of the House of Delegates, and most earnestly requests component societies to elect their officers and delegates in December.

TUBERCULOSIS NOTIFICATION.

All county societies are requested by the State Society, through its House of Delegates, to consider the "question of the compulsory notification of tuberculosis, for the purpose of thoroughly discussing the subject and suggesting the best method of making this effective, and indicating the class of cases that should be notifiable." The portion in quotation marks is a transcript of the official minutes. The subject came before the Society at the second general session, in the address of the President, and when the report of the Committee on Tuberculosis was presented and discussed. The President strongly urged notification; the committee did not touch upon the matter in its report. The question is now before all county societies, and should be discussed by them. Shall compulsory notification of tuberculosis be required, as in scarlet fever, diphtheria, etc., and if so, what class of cases shall be considered as indicating the necessity for notifying the health authorities of the existence of the disease? All component societies are respectfully urged to take up this matter as soon as possible, and to notify the secretary of the State Society of their action in regard to it. The tuberculosis problem is a large one, and our Committee on Tuberculosis has done a considerable amount of excellent work; they now need the assistance of all county societies, and this aid should be promptly extended to the committee. Therefore, please bring the question before your county society as soon as possible, and have it thoroughly discussed.

WASTING MATERIAL.

Dr. Osler, at a farewell dinner given him by some 500 physicians of this country and Canada on May 2d, called attention to a general condition which has been pointed out, so far as its local application to San Francisco is concerned, in the pages of the JOURNAL. He referred to the tremendous waste of clinical material in this country. In almost every town and city of over 50,000 inhabitants, one will find a hospital; yet in very few instances are these hospitals being used by physicians as they should be used; very seldom is the clinical material at hand put to anything like its proper use. And so it is in San Francisco. Hundreds of physicians in California go to San Francisco during each year, and would be delighted to have the privilege of seeing some of the large amount of very interesting and valuable clinical material in the various hospitals and clinics of that city. There is no reason why they should not; doubtless the chiefs of these clinics would be glad to have their out-of-town brethren see what is going on, and profit by the study of this material. Apparently it is only necessary to overcome a certain amount of inertia in order to bring the two elements together. Can it not be done?

HONEST MEDICINES.

Our JOURNAL is really only a very small factor in the game of "doctor, doctor—who's got the doctor," as played by the nostrum manufacturer; and so long as only ourselves called attention to the impropriety of his game, he did not much mind. But when the A. M. A. Trustees had been persuaded that something really had to be done, and the announcement was made of the Council on Pharmacy and Chemistry, formed with the object of differentiating honest medicines from those of questionable repute or out-and-out nostrums, then the situation was slightly altered; the attack could no longer be ignored. The original announcement concerning this Council was published in the April JOURNAL; in May we had the pleasure of republishing some further matter on the subject, and also some things that showed how at least one of the large journals—the *New York Medical Journal*—disliked the idea of introducing decency into the conduct of a medical journal. Sufficient time has now elapsed to permit one to judge of the reception by the medical press of this country of the Council on Pharmacy and Chemistry; remember, this Council stands for the principle that *secrecy has no place in legitimate, decent, professional medicine.* Editorial opinions vary on this subject; but with very few exceptions both medical and pharmaceutical journals are either opposed to it—as in the case of the *New York Medical Journal*—or are sadly afraid that it cannot succeed in doing any good. We read of "editorial hysteria"; of "cold, calculating presumption" of the A. M. A.; of "the arrogance of ethics"; of "regret that the Association has been hastened in its formation by the cackle of some young and eager reformers" (meaning our JOURNAL?); that this action of the A. M. A. "would strike, as it is intended to do, at the very root of the proprietary principle." And there you have the explanation. It is because this action of the Trustees of the A. M. A., in forming a council or body of experts who shall study and pass upon extra-pharmacopeial medicaments will strike at the "root of the proprietary principle," that there arises such a howl, such a loud, long, lingering lamentation. The "root of the proprietary principle" is composed of two branches, secrecy and fraud. Should it not be struck at, and hard?

THE SIMPLE REASON WHY.

When one sees a lot of people making an uproar, naturally curiosity leads him to ask, Why? Why do so many of these journals find fault, and object, or complain as though they were abused, or bitterly slander and attack those who are merely trying to do right? Why does one trade journal devote almost all of one issue to republishing contra comments, and three pages of its space to caricatures of your JOURNAL and its editor, and the *Journal A. M. A.* and its editor? The reason is easy; too easy; it is almost simple, it is so easy to read. It is merely a matter of dollars and cents. Practically all these journals make their big money, not from advertising good and decent things, but from advertising rank, out-and-out nostrums—from aiding in foisting upon the medical and pharmaceutical professions worthless stuff, to the great harm and injury of the sick, but to the enrichment of the unscrupulous manufacturer. Probably nearly all the profit that is made by the *New York Medical Journal*, the *Medical News*, the *Medical Record*, *American Medicine*, etc., is derived from the pages and pages of advertising of the rankest sort of secret medicines—nostrums. The trade journal referred to is published by a man who makes nearly all of his income from commissions which are paid to him for placing the advertisements of a dozen or so of the very worst nostrums manufactured. Could you expect that these people would do anything but howl at the prospect of being placed in the position of either dropping this nasty business, after its nastiness has been pointed out, or continuing to brand themselves as beneath the contempt of a self-respecting physician? It was only to be expected. Pages and pages of downright lies have been published anent the question; and that, too, was only to have been expected. It is a case of commercial greed *vs.* simple honesty and ethics. Some of these prostituted journals have said that no good manufacturer would submit to the rules of this Council. That is an outrageous lie. Most of the better houses in the country have already stated their desire to conform to the rules of the Council. (See April JOURNAL.) We have direct personal advices to the effect that at least two—amongst the largest manufacturers in the United States—were delighted with the movement, and will gladly

accept every provision of the Council. All honest men welcome just such a move; those who object and loudly clamor of their rights—well, it's easy to classify *them!*

SUDDEN CHANGE.

But very recently a sudden change seems to have begun to come over the editorial mentality of some of the pharmaceutical journals. A number of druggists' associations have expressed their hearty approval of the Council on Pharmacy and Chemistry, and have congratulated the Association upon the formation of this Council. The wise druggist sees at once just what the import of the carrying out of this scheme will mean to him. He sees relief from somewhat of the burden he is now forced to carry, in the shape of worthless nostrums, a small demand for which may be worked up by the wily manufacturer, inducing a few physicians to forget their duty and prescribe the secret stuff. Now, the druggists are the subscribers to and supporters of the drug journals. If the druggists approve of the Council, assuredly the drug journals cannot for long continue to abuse it; and some of them are already beginning to "hedge." When one appreciates it fully, the situation is really delightfully funny; the whole machinery of dishonesty is put out of order and rendered impotent by just a little honest effort and straight talk!

TENDON TRANSPLANTATION.

By F. LANGE, Munich.

Translated by James T. Watkins, M. D., San Francisco.

(*Concluded from page* 152, *May* JOURNAL.)

Finally, the possibility of thread-infection deserves mention. The danger that the silk threads be subsequently extruded in this way I do not consider nearly so great as Vulpius does. Vulpius, who reports over 400 tendon plastic operations—among which there apparently occur only a few operations with silk tendons—has experienced, in 25 per cent of his cases, after weeks or months, extrusion of individual threads. I myself have in 216 tendon plastic operations—among which 126 are supplied with silk tendons—to record only something over 2 per cent of thread infections. The difference in these figures, 2 per cent (Lange) against 25 per cent (Vulpius) is so great that a coincideuce is excluded; the cause of this difference must so much the more be sought in the method. Vulpius operates with hood and lisle-thread gloves; I use rubber gloves and mouth and brow bandages. In these two much discussed points, we therefore agree very well. That, above all, nothing in Vulpius' asepsis during the operation is to be regarded as the cause of the secondary extrusion of the threads, I hold beyond question with such a surgeon as Vulpius; also the great number of his perfect primary unions speaks against anything being wrong with his asepsis. Therefore it is very probable that the cause lies in the after treatmeut. Vulpius closes the wounds completely; I introduce a little piece of gauze wet in sublimate (1:1000) into one corner of the wound which is closed everywhere else, and drain the latter in this way for 48 hours.

Earlier I used to remove the strip of gauze through a fenestrum in the plaster dressing. That was inconvenient and took time. At the suggestion of my assistant, Dr. Oberrait, of late I tie a long silk thread to the gauze drain, carry the other end of the silk thread out at the upper or lower border of the plaster dressing, and after forty-eight hours remove the gauze by a vigorous pull on the silk thread, without in any way changing the dressing. (Temporary drainage.)

Vulpius advises against such a procedure. He says, "The better closed the sutures over the tendon, the more certain are we to avoid a secondary infection of the sunken suture material." Theoretically that sounds quite plausible, but the practice in this case speaks to my advantage. I have right frequently observed that from the angle of the wound from which the gauze drain projected, for days or even weeks a cloudy serous or cloudy hemorrhagic, or even an oily secretion was discharged. Where the fluid came from was not always to be certainly determined. Frequently a necrosis of torn-off fatty tissue or a bit of fascia may have caused it. That it resulted from infection is altogether improbable, since the wound itself and the skin sutures appeared perfect, and since I have never observed with it a rise of temperature. The secretion appears to be of an entirely harmless nature, and I think that the ordinary wounds, such for example as are caused by the removal of a tumor or similar operations which have been completely sutured, such a secretion is as a rule resorbed without presenting any symptoms.

The conditions are different, however, in wounds in which foreign bodies are to heal in. If such wounds are completely closed, and if any secretion develops in them (it does not appear to me unlikely), I think it is much more judicious to obtain a free discharge of the secretion. The very small number of my stitch abscesses as compared with that of Vulpius speaks eloquently for the correctness of my assumption. This question, whose explanation I hold to be well worth while, would be easily determined, should Vulpius agree to test my method, and should he in that way obtain any appreciable decrease of stitch abscesses. You see that from my method I have thus far according to my experience no reason to fear stitch abscesses. Nevertheless, I would even to-day have less faith in my silk tendou if the silk tendons did not become true tendon tissue. Two years ago, at the meeting of the Society for Original Research (Naturforscherversammlung) in Hamburg, I said that my clinical experiences seemed to indicate that the silk tendons become surrounded by living tissue because the former under the influence of function became thicker from month to month, and I was able to present in Hamburg a microscopical specimen which showed that the new tissue was composed of true tendon tissue. I am happy to say that I can place before you two other preparations of silk tendons. The one comes from a 5-year-old boy; the other from an 18-year-old girl. Both silk tendons have functionated for more than two years. In the course of a necessary secondary operation it was possible for me to obtain the preparation. You see admirably well in both not only how the silk is surrounded by a sheath of tendon, but also you see especially in the cross-section how organization pushes into the interior of the tendon, and how true tendon tissue forms the nucleus of one of the silk tendons. The specimens further present extraordinarily interesting disclosures concerning the nature of the origin of the new tissue. There were two possibilities for the development of tendon tissue; either the new structure could arise from the tendou stumps of the transplanted muscle, or it could develop of its own accord. First, a young connective tissue appeared about the silk tendon, from which there gradually developed true tendon tissue. My specimens speak altogether for the last assumption. For you see in the central layers in the neighborhood of the silk, very young connective tissue, with numerous cells, vessels, and giant cells, while towards the periphery, in the evidently older layers, the tissue is progressively poorer in vessels and cells, and more and more assumes the character of true tendon tissue.

The specimens are certainly very interesting, but still more interesting for us is the question, what use have the patients for the silk tendons?

The functional worth of the silk tendons can best be determined from their services in quadriceps paralysis. In this paralysis already in rare instances —and notably a case reported by Krause—a good result has been obtained. However, as a rule, the results are so bad that by certain authors, Gocht for example, the substitution of this strong and important muscle was held to be hopeless. By transposing the biceps and semiten. to the front, by elongating them with silk tendons, and by suturing the tendons to the periosteum of the tibia, I was able to devise a method which in all cases where these flexor muscles are retained can be employed and promises a satisfactory result. Vulpius, who expresses so many doubts about the periosteal transplantation and the silk tendons, has with this paralysis discarded the older method in favor of the periosteal plastic operation. He elongates the substitute muscles, which have been transposed forward, by silk tendons, and sutures the latter to the periosteum. The slight modification which Vulpius employs—Vulpius sutures to the periosteum of the patella, I to the periosteum of the tibia—is insignificant, if the lig. patell. inf. is in good condition. If the latter has been injured by the paralysis, there is danger that the ligament may elongate under the influence of subsequent muscular contraction; this modification of Vulpius' would render doubtful the result of the entire operation. The function of the new muscle is not to pull the patella upward, but to extend the leg, and therefore the natural and only certain point of attachment for the new tendon is the tuberosity of the tibia. Vulpius has also theoretical objections to this recommendation, because the silk tendon is in this way longer. However, I think this question is already answered by the practical results.

I have employed silk tendons twenty-five times in substituting for the quadriceps, and have thus far never experienced any kind of a disturbance or extrusion. In seven patients there remained to be employed for this purpose a single flexor muscle. Such cases are doubtful; nevertheless, one can make the attempt. In four of these cases, I have been able to free the patients from their apparatus. In the nineteen other joints, there were two flexor muscles which could be employed. Of these patients at this moment three are undergoing treatment and employ apparatus; still, they will all presumably be freed from their apparatus. The method offers, according to my experience, the most certain and best prospect imaginable which a tendon plastic operation can offer—assuming beforehand that two strong muscles are present for the substitution. If the substitute muscles have similarly suffered from the paralysis, it is evident that through it the subsequent functional result must be impaired. If pathologically changed muscles must be employed in substitution, a normal function need never be expected. However, the children operated upon have almost always received benefit from the operation, not only through the ability to stretch the knee, but especially through the appropriate arrangement of the musculature which is obtained by the operation.

The greatest claim on the leg musculature in walking is made at the moment, if the body rests on one leg, when the other leg is carried from behind forward. In this phase of the gait the standing limb is held extended in the hip and in the knee joint. The extension of the knee joint is normally obtained by the quadriceps, while the biceps, semitendin., and semimembran. cause extension in the hip joint. Since however these latter muscles through their simultaneous contraction cause flexion of the knee joint, a large portion of the strength of the quadriceps is employed to neutralize the knee-flexing influence of the semitendin., semimembran., and biceps; for the function of the leg in standing or walking, such an arrangement of the muscles is unsuited, and it is distinctly more advantageous—once one is compelled to be economical with the muscle force present—to procure a muscle which at the same time extends the leg at the hip and at the knee joint. This is brought about by the method which I recommend of transplanting the biceps and semitendin. to the front, and in this way the fact is explained that even in cases in which transplanted muscles have suffered injury and present only a few brownish red fibrils while the greater part of the muscle mass is degenerated, still the object of the operation, to enable patients to walk without apparatus, is as a rule obtained. Of course these patients were never able to hold the leg horizontally when it had been extended at the knee joint; still as a rule they were able to extend the leg while lying on the side. On the other hand when the transplanted muscles were completely sound, an ability to extend at the knee joint was obtained, which in strength was not far behind that of a healthy leg.

The testing of the power to make extension at the knee joint requires the greatest precautions. The patients employ unconsciously all sorts of devices in order to extend the leg at the knee. Many twist the entire limb as far as possible outward, and they are able in this position by means of the tension of the medial ligaments of the knee joint to lift almost horizontally the leg at the knee, even if no muscle at all be present which can cause extension at the knee. Other patients seat themselves so that the paralyzed leg is supported at the bend of the knee either by the chair or the leg, and in this way they render easier the task of extending the leg at the knee. To this category of patients would appear to belong the child which Vulpius operated upon and pictured in his monograph. Such a photograph should not be convincing of the serviceability of the transplanted muscle. Just as little does the simple information suffice in the history of the case that the operated patient has learned to extend the leg. It must always be positively determined whether the patient is able to extend the leg only in the side position, or whether he can hold the freely extended leg horizontally. Only in the last case, when the new muscle is able to overcome the weight of the leg, can one speak of a practically normal ability to extend it. The result of the quadriceps plastic operation as I recommend it depends in the first place, as already said, upon the condition of the muscle to be employed; in the second place, upon the tension which the operator gives to the transplanted muscle.

The muscles which are transplanted to replace the quadriceps must, according to my experience, be sutured under the strongest tension which is permissible; against this recommendation, also, Vulpius has theoretical scruples to present, and fears an injury to the transplanted musculature from the extreme tension. My experiences speak emphatically against the correctness of Vulpius' assumption; for my results have become better from year to year, the more I learned to suture the transplanted muscle under stronger tension. The strongest tension which I have ever given to a transplanted muscle, was employed for a patient whose dressings were removed fifteen weeks after operation. This fact shows that the transplanted muscles are not injured by the extreme tension which I have employed, and it ought to demonstrate better than all theoretical arguments the serviceability of my method. A necessity for modifications and changes in this method I can only admit when it has been demonstrated that through them quicker and better results can be obtained.

Meine Herren, I trust that you have received from my words the impression that I am absolutely convinced of the advantages of the periosteal plastic operation and of silk tendons. Nevertheless, I do not utterly condemn the old method. For light cases, the old method is equally applicable with the new. If the paralyzed tendon is so strong that a reliable suturing of it with the power-giving muscle is possible, and the dissection of the paralyzed muscle corresponds to the functional necessity of the particular case, I also employ the old method. Indeed, there are cases where the old method offers distinct advantages over the periosteal plastic operation. If, for example, in the hand, the extens. dig. is par-

alyzed, and the extens. carpi. rad. must be used to replace it, in such a light task it is as a rule more correct to suture tendon to tendon than to permit four silk tendons to go out from the power-giving muscle to be attached to the basal phalanges of the fingers. If, without endangering the result of the operation, one can spare the patient four wounds, and in that way render the operative procedure easier and less dangerous, of course one must do it. The conditions in severe paralyses are different. Here, according to my view, we must above all things seek to obtain functional independence for the few muscles which are left, and if you agree with me in this you will further agree with me if I employ for these cases as a rule that method which assures the greatest certainty of the result, and the greatest freedom in constructing our operation plans; that is, the method of the periosteal plastic operation and of silk tendons.*

REPORT OF THREE CASES OF INFRA-DIAPHRAGMATIC AND ONE OF SUPRA-DIAPHRAGMATIC AORTIC ANEURISM.

By C. M. COOPER, M. B., San Francisco.

CASE 1. The first patient, whom I saw in extremis mortis, was an Italian 30 years of age, a gardener by occupation who had drunk wine freely and had had acute rheumatic fever eight years previously. He bore no evidence of past venereal trouble; he now suffered from a tubercular right lung apex, but for the past year he had been subject to severe remittent pain which had begun suddenly. This was felt in the flanks and radiated to the mid point of the spine. It lasted for a few days and then disappeared to again recur. For six months he had had continuous pain in the pit of his stomach, and during the last month constant pain had been present in his back in the lower dorsal and upper lumbar vertebral region.

The doctor had found: 1st, rigidity of the dorso-lumbar spine without deformity; 2nd, moderate tenderness on percussion over this area; 3rd, pain radiating into both flanks on movement; 4th, somewhat rigid abdominal muscles with an absence of anything abnormal on abdominal examination.

In view of the association of these findings with a tubercular right lung apex, a diagnosis of tuberculosis of the spine had been made and a plaster jacket put on. This had occasioned increased pain and had had to be removed and I saw him shortly after this had been done.

He lay dying, with pinched face and a very quick, low pressure pulse. He was perfectly conscious, pale and complained of vague abdominal pain. The abdomen was extremely sensitive, but not distended; the anterior muscles were rigid. A very large fluctuating non-pulsating mass could be made out in the right lumbar and right iliac regions apparently along the line of the ilio-psoas muscle. Further examination seemed unjustifiable.

The autopsy held next day revealed a tuberculosis of the right lung apex and an aneurism growing from the right posterior part of the abdominal aorta opposite the upper fibres of origin of the psoas muscle into which structure the rupture had taken place. The aneurism had eroded the bodies of the 1st and 2nd lumbar vertebræ, having grown in a backward direction.

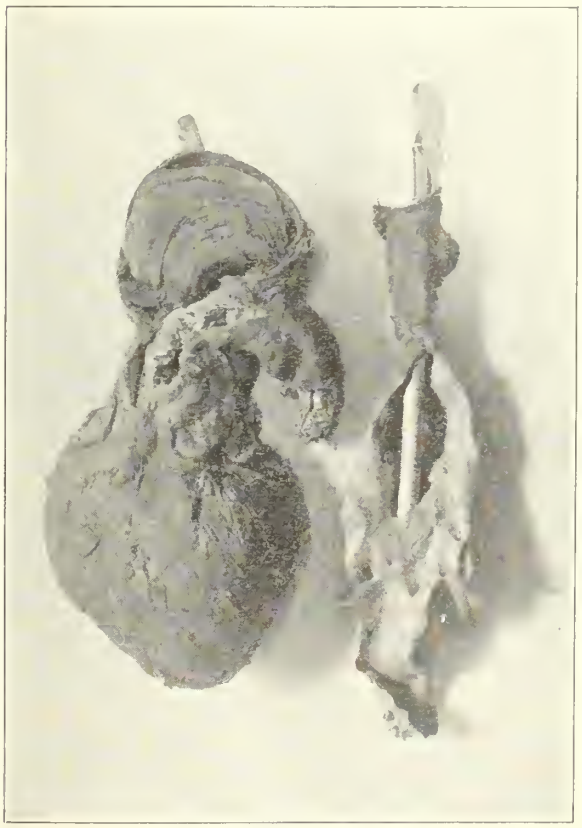
Case 2. The second patient, a strong muscular middle-aged laboring man, was referred to me for a fluoroscopic examination by one who, clinically, could find no cause for the presence of pain in the lower thoracic region and a harassing cough. The fluoroscope revealed a rounded pulsatile mass jutting out from the lower thoracic aorta and resting on the left diaphragm, without doubt a supra-diaphragmatic aortic aneurism. The man disappeared so that unfortunately I was not able in the light of this added knowledge to correlate the clinical and fluoroscopic findings. I briefly mention the case as it emphasizes that aneurism in the region of the lowest dorsal vertebræ may be supra as well as infra-diaphragmatic.

Case 3. Patient No. 3 was under the care of Dr. J. Wilson Shiels and myself. He was a colored individual, past middle life, who had labored hard and had had syphilis. It was plain that he had a large clotted saccular aneurism of the transverse portion of the thoracic aortic arch—an adherent pericardium and an enlarged thyroid gland with some indications of Grave's disease, but in addition there were some symptoms which could not be accounted for by the presence of these lesions. Severe pain in the pit of the stomach which radiated indefinitely into the loins was constantly present. At times intense exacerbation occurred and then the patient would lie motionless, curled up in bed, all movement aggravating the condition. There was a very marked general wasting such as not infrequently occurs in association with such intense pain. The skin of the abdomen and all the tissues of the legs were apparently very hyperesthetic. There was no muscular or sensory paralysis.

Local examination revealed: Some rigidity of the lower dorsal and upper lumbar vertebræ unaccompanied by deformity. A moderate amount of tenderness on deep percussion over this area. A thin abdomen, palpation of which was negative. The question arose, What was the cause of this intense pain and spinal rigidity?

The absence of symptoms relative to any abdominal viscus, and a point on which we were inclined to lay much stress, viz.: the absence of vomiting even during the exacerbations, seemed to us to rule out a visceral cause. The absence of deformity, the nonsuccess of rest in giving relief, together with the intensity of the pain, excluded in our opinion, tuberculosis of the spine. The absence of all paralytic symptoms, the absence of marked local tenderness, negatived tumor of the vertebræ. The absence of all paralytic symptoms, the presence of normal abdominal reflexes, the presence of moderate percussion tenderness, were against dural tumor.

The clinical picture did not imitate chronic osteo-arthritis of the spine and we were left with an aneurism of the abdominal aorta high up under the diaphragm as the probable lesion, even though the femoral pulses were full and not delayed, the history of syphilis and the presence of a clotted thoracic aneurism favoring this diagnosis. Thirty-two hours before death, a big, fluctuating, pulsatile mass appeared in the left loin; the left kidney and spleen were pushed downward and forward. The aneurism had evidently ruptured. The postmortem specimens were extremely interesting (See Figure No. 1). There was a large, clotted, saccular aneurism of the transverse portion of the aortic arch growing from its upper wall and a somewhat similar but much smaller localized saccular aneurism growing from the posterior left aspect of the abdominal aorta high up under the diaphragm, this having eroded the body of the first lumbar vertebra. I may add that in this patient potassium iodid was not tolerated—the smallest doses aggravating the symptoms and causing marked increase of the pulse rate; probably because of the condition of the thyroid gland.



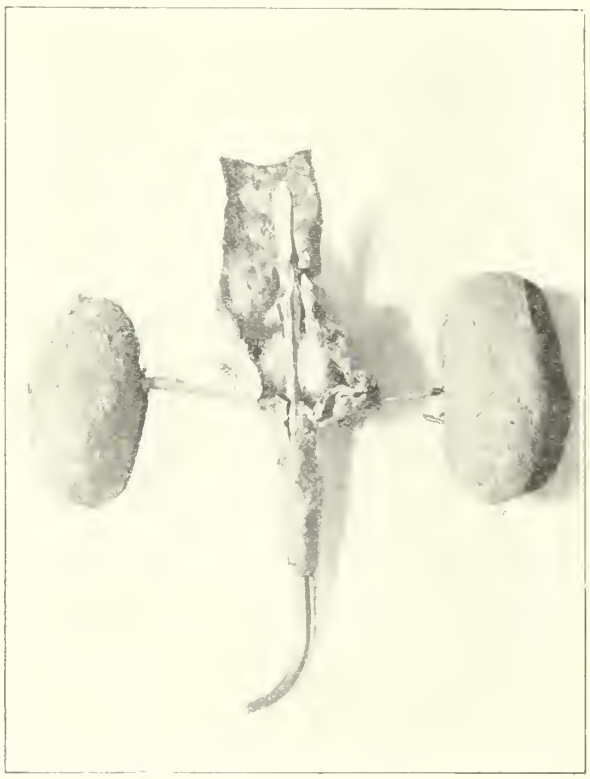
Photograph No. 1, Case No. 3.

The thoracic aortic aneurism is shown growing from the upper aspect of the arch, and though it has attained a large size it does not interfere with the lumen of the aorta in which a mass of lead foil lies. The lamination of the clot is well shown. To the right is the abdominal aorta which has been cut open. A sound has been introduced into the descending thoracic aorta and made to protrude through a triangular opening which formed the mouth of the saccular abdominal aneurism. The big abdominal vessels are seen to arise below the aneurismal site.

*[Refcrences to illustrations occurring in the text were not omitted in the translation, in order to further preserve the accuracy of the original document. It was found impracticable to reproduce the original figures].

Case No. 4. As this man lay in the postmortem room, I was asked in Prof. Kerr's and Dr. Ebright's absence to see a patient who had just been admitted into the University wards of the City and County Hospital without an obtainable history. The patient lay in bed in a comatose condition; the pupils were contracted but there was no eye or any other motor paralysis. The temperature was subnormal, the tongue dry and furred, the reflexes were exaggerated, the Babinski phenomena being present. Urine and feces had been passed in bed and no more urine could be obtained. On pulling back the bedclothes, we saw a large semicircular pulsatile mass about the size of a half orange lying between the ensiform cartilage and the umbilicus. All the classical physical signs of an aneurism were present though the femoral pulses were full and not delayed. The heart was not much enlarged, the pulse was fairly good; no edema was present. We believed the patient to be suffering from a terminal uremia. Knowing that a terminal uremia is nearly always due to a circulatory breakdown, we, in view of the condition of this man's cardio-vascular system, felt justified in looking elsewhere for the causative uremic factor. The aneurism lay in the region ot the anatomical site of the origin of the renal arteries. We therefore sent the patient to the autopsy room with a diagnosis of uremia, most probably due to the occulsion of the renal arteries from involvement in the abdominal aortic aneurism.

The postmortem examination revealed a large abdominal aneurism which involved the whole circumference of the aorta. This aneurism had eroded the upper lumbar vertebræ. A thick clot lay over and blocked the mouth of the right renal artery. The mouth of the left was so contracted and distorted that only a small probe could be introduced into it, the narrowing being over half an inch in extent. This specimen was shown with clot attached at the University Alumni Society but it has since been dislodged (See Figure 2).



Photograph No. 2, Case No. 4.

The anterior wall of the aneurism has been removed and the sac partially filled with absorbent cotton. The thickened aneurismal sac wall is well shown, as also areas of aortitis above the origin of the ancurism. The clot has been removed, but the narrowed portion of the right renal artery is well shown, a pin transfixing this structure. The formalin solution in which the specimen has been kept has occasioned a shrinkage of the aorta below the aneurism.

In briefly reporting these cases I desire to draw attention, 1st, to the great frequency of aneurisms of all kinds on the Pacific Slope.

2nd, To the fact that clinically we meet with two kinds of abdominal aortic aneurism; one variety growing forward and exhibiting unmistakable clinical signs and symptoms. The other a small saccular aneurism which grows backwards and erodes the vertebræ.

3rd, That this latter variety exhibits no pathognomonic physical signs, though some local spinal rigidity and tenderness on deep percussion are usually present.

4th, That pain is a prominent symptom, this pain being extremely severe, and usually of two kinds, one constant and fixed, the other remittent and often radiating. Moreover, this pain is different from visceral pain inasmuch as it, per se, is unassociated with vomiting.

5th, That in the second variety of abdominal aortic aneurism the diagnosis has to be made by a process of exclusion, due attention being paid to pressure symptoms and symptoms indicative of the involvement of the blood supply of the different viscera.

ANALYSIS OF FIFTEEN CASES OF OPERATION FOR CANCER OF THE BREAST.*

By THOS. W. HUNTINGTON, M. D., San Francisco.

IT IS lamentable that full accounts of work done and results attained in dealing with breast cancer have so rarely found a place in published records. When we consider that in every hospital a large number of operations are done every year for the relief of this condition, it seems strange that only now and then a surgeon has given to the world his complete final results with a conscientious analysis. So far as I can learn, a detailed account of breast cancer work has never been published by any Pacific Coast surgeon. If I am in error in this regard, I shall be grateful for any references which may be forthcoming. It is not improbable that explanation for this neglect is due in large measure to three factors: First, failure to record cases systematically as they appear. Second, the difficulties which are encountered in tracing patients after operation. Third, the enormous preponderance of fatalities which promptly follow the most painstaking and thorough surgical measures. This latter consideration probably more than all others has discouraged operators from adding their experience to the aggregate of human knowledge. To me it is apparent that the occasional operators, skillful though they be, will not find their results conforming to those who in larger fields, are able to eliminate cases, which are obviously hopeless from the standpoint of a three year cure. Furthermore in the larger hospitals, its is fair to assume that a far greater proportion of early hopeful cases are promptly referred to the surgical service than where patients from remote districts appeal to the surgeon at the suggestion of their family physician or upon their own initiative, and as a last resort. If we are to accomplish really brilliant results in this department, it will only be when the regular attendant, realizing the dangers that beset women who are conscious of the presence of a breast tumor of any sort, more earnestly insist that a careful study of the case be entered upon by a competent authority.

Rodman, in a recent paper, insists that in a reasonably large number of suspected cases, an intelligent diagnosis can only be made by a preliminary diagnostic incision, to be followed by microscopic investigation of the mass. When such doctrine is cordially endorsed by the general practitioner by whom these patients are seen tolerably early, then and then only will the average surgeon find his final results conforming to those of the masters who have blazed the trail and set the pace.

The matter of history taking and record-keeping is of sufficient importance to warrant the publication of a scheme which if followed throughout will enable the operator to make his work available for future reference. Moreover, it has been my experience as it has of most careful observers that breast-cancer patients are more than willing to keep in close touch with the operator for an indefinite period after surgical

*Read before the San Francisco County Medical Society.

treatment. This will be found specially true when the patients are made to realize that a full and complete record of the case is to be preserved. On inspection of my own cases, I was much interested to note that in every instance my record was complete from the post-operative standpoint.

SCHEME FOR RECORD IN BREAST CANCER CASES.

Name. Age. Residence. Name and address of doctor or relative.

Occupation. Married or single.

Family History. Grand-parents, grand-aunts and uncles, parents, aunts, uncles, brothers and sisters.

Children: age of youngest, nursed or not, mastitis, which breast. Traumatism.

General appearance: Cachexia, condition of skin, of lungs, of viscera generally.

Weight, maximum and present.

Side affected, and early history of involvement. Date of first symptom and of first medical examination.

Locate quadrant or segment containing tumor. Relation of tumor to seat of former mastitis or trauma. Describe tumor. Condition of axilla and related glands.

Date of operation, anesthetic. Condition of axilla, in absence of glands note pain on pressure. Time spent in operation, pathological findings. Subsequent history.

Wound healing. Frequent report as to weight and general condition. Watch for pulmonary signs, cough, shoulder pains, pulse rate.

Note resumption of arm function.

In recurrent cases: Date of first evidence of recurrence, whether remote from or at seat of operation.

Date of secondary operations.

In fatal cases, date of death and autopsy findings.

The following is an analysis of fifteen cases of breast cancer; the patients, with one exception, have been operated on and treated by me since 1896. The single exception was operated on by Powers of Denver and came under my observation subsequently; hence it is included in this series. Of the 15 individuals, 13 were married and two were single. Ten bore children. The oldest was 74 years; the youngest 32; average age 48.4 years. One patient was under 40, eight were between 40 and 50. One was 62 and one 74. In nine the left, and in 6 the right breast was involved. In every case the axillary glands were unmistakably implicated. In the first 2 cases the breast and axillary glands were removed through a continuous incision. The pectoral muscles were left intact. Both these patients are dead. The remaining 13 were subjected to the full Halsted operation. Nearly full arm function was noted in every case. The diagnosis in every instance was confirmed by microscopic examination.

Wound infection occurred in case 5 after a primary operation; and fatal infection after a secondary operation in case 2. This was the only immediate fatality in the series.

Of the series, 10 are dead: 6 from recurrence at seat of operation, and 4 from recurrence at a remote point.

RECURRENCES AT SEAT OF OPERATION.

Case No.	Duration of Disease before Operation.	Survived Operation.	Survived after Discovery of Recurr.
2	6 months	13 months	3 months
3	5 months	26 months	8 months
5	24 months	22 months	11 months
6	10 months	19 months	6 months
10	12 months	11 months	5 months
12	8 months	6 months	3 months
		Average, 16 months	

It will be generally conceded that the operator or the method employed must not be held responsible for fatalities due to remote recurrences; the field of operation and its immediate environment remaining free for manifestations. Four cases of this character occur in this series as follows:

RECURRENCES REMOTE FROM SEAT OF OPERATION.

Case No.	Duration of Disease before Operation.	Survived Operation.	Survived after Discovery of Recurr.
1	24 months	10 months	7 months
7	7 months	19 months	6 months
8	2 months	23 months	4 months
11	5 months	11 months	3 months
		Average, 15¾ mos.	

Longest Survival, 26 Months. Shortest Survival, 6 Months.

Five patients are still living as follows:

Case 4. Entirely well at the end of 5½ years. The diagnosis in this case was made five days before operation.

Case 9. Well at the end of two years, but recently called my attention to a small sensitive area in opposite breast, which will be carefully watched. The first symptom was noted 5 weeks before operation.

Case 13. Entirely well and in fine condition at the end of 1 year. First symptom noted 10 months before operation. Three months later her physician advised waiting six months.

Case 14. Well at present time. Operation 5 months ago. First symptom noted 7 days before operation.

Case 15. Well at present time. Operation 4 months ago. Patient's age 74, disease slowly progressive. First symptoms noted 2 years ago.

Four patients presented a family history pointing definitely to cancer, and all are dead.

Case 2. Mother died of cancer of uterus. Father died of cancer of mouth. Sister living with cancer of breast. Disease appeared at age of 32. Survived operation 13 months.

Case 6. Mother died of cancer of uterus. Disease appeared at 38½. Survived operation 17 months.

Case 8. Mother died of cancer of bowel. Father died of sarcoma of leg. Disease appeared at 44. Survived operation 23 months.

Case 11. Mother died of tumor of liver. Sister died of cancer of breast. Disease appeared at 45. Survived operation 11 months.

Five patients presented a history of a previous mastitis associated with lactation. In all, the tumor was first noted beneath a cicatrix in the skin.

Case 1. First symptom noted 2 years before operation. Survived operation 10 months. Recurrence in lung.

Case 4. Small tumor noted 6 months, but diagnosis made 5 days before operation. Living and well after 5½ years.

Case 12. First symptom noted 8 months before operation. Rapid recurrence in scar and adjacent lung and death in 6 months.

Case 13. First symptom noted 10 months before operation. Well at end of 13 months.

Case 14. First symptom observed 7 days before operation. Well at end of 5 months.

Condition of breast at time of operation in fatal cases:

Case 1. The tumor was the size of half an orange located in the upper inner quadrant. It was adherent to the skin and to the thorax, nipple was retracted. Recurrence in lung.

Case 2. Tumor large and diffuse, located in the axillary hemisphere. Skin adherent, nipple retracted. Recurrence in axilla.

Case 3. Tumor was very large, located in axillary hemisphere, adherent to thorax and skin, nipple umbilicated. Recurrence in skin and lung.

Case 5. Large conical mass in the center of breast, adherent to skin and thorax, nipple obliterated. Recurrence in mediastinum.

Case 6. Large diffuse mass in lower outer segment of right breast, nipple retracted. Recurrence in scar, lung and abdominal organs, and probably in liver or gall-bladder.

Case 7. Large, elevated tumor in lower outer quadrant, adherent to skin and thorax. Recurrence in lung.

Case 8. A large, hard, moveable, nodular tumor located in a very large breast. Tumor of recent origin, nipple normal, skin free. Recurrence in both lungs almost simultaneously.

Case 10. The entire left breast was the seat of a large diffuse mass, skin adherent, nipple retracted, breast moveable. Recurrence in skin and both lungs and opposite breast.

Case 11. Large nodular hard mass, located in axillary hemisphere. Recurrence in both lungs.

Case 12. Breast generally enlarged. Multiple nodules in lower hemisphere, hard, tender and painful. Breast moveable, nipple normal, skin free. Recur-

rence in skin back of axillary line and simultaneously in lung.

Condition of breast at time of operation in patients still living:

Case 4. Small, sensitive nodule, size of filbert in outer segment at a level with the nipple. Skin free, nipple normal, breast moveable. Tumor located in seat of old mastitis. Patient living and well at the end of 5½ years.

Case 9. Tumor the size of an English walnut in outer upper segment, of recent origin, moveable, skin free, nipple normal, growth rapid. Living at the end of 2 years.

Case 13. Hard nodule, size of half an egg, beneath scars of an old mastitis, in the upper outer quadrant. Irregular, painful, nipple slightly retracted, breast moveable. Living and entirely well at the end of 1 year.

Case 14. Small moveable tumor, size of almond in upper outer quadrant. Breast moveable, skin free, nipple normal. No recurrence at end of 5 months.

Case 15. Tumor size of half an orange in center of right breast, moveable, nipple retracted and skin adherent. Well at the end of 4 months.

If it be conceded that this series is made up of 15 average cases, the operations performed with average skill and judgment, in the presence of such a percentage of mortality the question naturally arises, shall the patients in late, advanced, and obviously hopeless cases, be subjected to operation?

Were radical cure the only justification for surgical treatment, this query would hardly be a subject for serious consideration. But the fact is, that the avoidance of extensive ulceration and ultimate widespread infection of a mixed type, together with pain, hemorrhage and all the evils attendant upon neglected mammary cancer affords legitimate reason for operation, though in the face of impending recurrence and death.

In a series so small as the foregoing, no conclusions of great value can be drawn. The suggestiveness of certain findings, however, is apparent. First: Breast-cancer patients coming to the operator from remote districts cannot be expected to yield brilliant results from the stand-point of three-year cures. Second: Breast cancer originating at the seat of a previous mastitis is of frequent recurrence. Such cases from the standpoint of radical cure, other things heing equal, may be regarded favorably. Third: Patients with a pronounced family history seem to be unfavorable as regards radical cure, even though attacked at a very early period. The age of the patient at time of occurrence of the disease in this class of cases seems to be younger than in those of indefinite or traumatic origin. Fourth: The second case of this series serves to verify the observation of many authorities, viz., that cancer of the breast in young women (at or about 30) is usually acute in character and rapidly progressive.

DISCUSSION.

Dr. Rixford:—When Dr. Huntington told me he was going to report his cases of cancer of the breast before this society and asked me to report mine, I rather demurred because I am not yet prepared to make final report of my cases of cancer of the breast. I have been operating by the radical method only 9 years; naturally the operations were fewer in the earlier of these years and hence a majority of my cases are rather recent. Moreover, surgery is today interested not so much in the immediate results of operations as in final results. However, for the sake of the discussion, I have gotten my cases together as best I could and will present them in a preliminary report and rather in the form of discussion of the subject as introduced by Dr. Huntington than as a formal paper.

I begin this series of cases with the first patient operated on after the method of Halsted which was in 1895 and I can well remember my surprise and delight at the ease with which the tumor was removed in a single mass, the simplicity of the anatomical dissection, the freedom of access to the highest points in the axilla and withal the thoroughness of the procedure.

Since 1895 there have come under my care 30 cases of carcinoma of the breast, 28 in the female and 2 in the male. A number of other cases were excluded because of some doubt in the diagnosis but in these 30 cases the diagnosis was beyond question and in all of those patients operated upon the diagnosis was confirmed by microscopical examination. Cases seen by me in consultation are not included as not having come under my personal care.

Of these 30 patients the ages were as follows: 6 under 40 (youngest 34), 11 under 50, 3 under 60, 1 under 80 (oldest 73); 21 of the women were married, 3 single and 4 of marital state unknown though probably married; 14 of the married women had had children; unknown as to children, 11.

In 22 cases in which I have record of the time elapsed after discovery of the tumor till radical operation was performed the average is 12 months. Two came within 2 months, 10 within 6 months, 6 within 12 months, 3 within 24 months and 3 within 36 months. In this list I have excluded 3 cases in which the patients said the tumor had been present 8, 9 and 10 years respectively, because these statements were too doubtful to be credited; they might have some meaning in the matter of metaplasia of benign into malignant tumors. That the average time of all of my cases coming to operation should have been 12 months after the discovery of the tumor is a serious criticism on the knowledge the public possesses of cancer of the breast.

Of the total of 30 cases, 25 patients were subjected to radical operation. Two of these, done within the last two months, are too recent to be of value from the standpoint of final result. Of the remaining 23 cases, 8 patients are living, 9 are dead and 6 not traced, although one of the last was living 2 months after operation, another 6 months and a third, 13 months without recurrence.

The immediate mortality of the operation was 2 deaths in 25 operations or 8%. One patient became so weak under the anesthetic that the operation had to be concluded without opening the axilla and the patient died within half an hour after leaving the operating table. The death was pretty clearly due to heart failure under the anesthetic and would have occurred whatever the operation. The other death occurred on the second day after a completed Halsted operation, of cause undetermined in the absence of an autopsy. Within 30 hours of the time of operation the patient had a rise of temperature to 103° with weak and rapid pulse and in a few hours more died. In the remaining 7 cases, in which death was due to recurrence after operation, the patients lived an average of 12 months (17, 15, 14, 12, 11, 8, and 6 months respectively).

Of the 5 patients not operated upon, one case was of recurrence after a partial operation done in the East. I advised the radical operation though I was doubtful whether it would be successful. Operation was refused. The 4 others were clearly inoperable. I mention these cases because I wish to show that I have operated on all of the patients that have come to me except these 5 and of these 1 refused operation, 2 died within 5 weeks, 1 in 6 weeks and the other in 8 weeks. Undoubtedly had the selection of cases for operation been a little more from the standpoint of what Macewen would call a "statistical conscience" the list of inoperable cases would have been larger and the proportional number of final successes correspondingly greater.

Of the 23 patients operated on a year ago or more, 8 are living, one 4¼, one 3½, one just under 3 years; the others 21, 19, 17, 14 and 12 months respectively, after radical operation. Of these 8 patients, 5 are now free of recurrence, at 4½, 3½ years, 21, 14 and 12 months respectively. The remaining 3 patients have had recurrence and have had secondary operations, but in all too recently to be reported, though 2 of the 3 have already had lenticular recurrences subsequently which have disappeared under the X-ray, in the hands of Dr. Lehmann of Lane Hospital.

Ten patients have had recurrence, 8 regional, one in the lung and one in the spinal cord. A number of these were operated on for the recurrence and their lives undoubtedly prolonged thereby.

A word about the prognosis. Dr. Huntington's statistics, if I have heard them rightly, would show that the longer the tumors were noticed before operation, the longer the patients lived after operation. Now, paradoxical as this may seem, I suspect it is strictly true and simply means that where a carcinoma of the breast has existed for a long time, say 2 or 2½ years without causing general carcinosis or developing into necrotic ulcer, the tumor is one of slow growth with large predominance of connective tissue elements and of relatively low malignancy. The removal of such a tumor is often a complete cure, or if recurrence does occur it does so at a remote period. An important matter that is seldom spoken of is the fact that tumors of the breast are not found early in fat women and that therefore the prognosis after operation in fat women is much worse than in thin women. I have gone over these cases with reference to this point and find that 7 of the 30 patients were quite fat. The average time they had waited after discovery of the tumor was only 5½ months, far below the average of 12 months and yet in every case of the 7 the tumor was far advanced with fixation and involvement of the axilla. One patient, whose mother had died of carcinoma of the breast, and an aunt came within two weeks of the time of first discovering the tumor and yet the tumor was far advanced, large axillary involvement, etc.

In most of the 30 cases the diagnosis was evident from a mere glance, for in the great majority of them the tumor was well developed. The diagnosis is difficult only in the early stages and just there where it is most necessary that it should be correct, for it is only in the early stages

that operation may be looked upon as really curative. The one characteristic of malignancy is infiltration of surrounding parts manifested by fixation and contraction of the connective tissue elements of such a tumor or of the bands which enter it. The retraction of the nipple, the dimpling of the skin when it is pushed up from the sides toward the tumor, are the result of such contraction. Fixation is often made manifest by raising the arm and putting the greater pectoral muscle on the stretch. A malignant tumor will often be found to be almost immoveable in the direction of the fibres of the greater pectoral while still moveable across them when the arm is thus raised. Blood-stained discharge from the nipple is often significant of malignancy. Excision of a portion of a breast tumor for microscopical diagnosis I consider a hazardous and unwise procedure and to be used only when all other means of diagnosis have failed. If the knife cuts through tumor tissue there is almost sure to follow lenticular metastasis in the neighboring tissues.

Complications met with include complete and lateral resection of invaded veins, wound of the axillary artery closed by suture, wound of thoracic duct (controlled by ligature), aspiration of air into sub-clavian vein and involvement of the chest wall and resection of the infected area. The latter complications are of special interest as I consider the procedure as applicable to a good many cases and as promising a great deal for otherwise fatal terminations. The first case I had seen of resection of the chest wall for malignant disease was with Dr. Stillman who successfully removed an area of two or three square inches and covered the defect with a skin flap. Since then I have operated four times, twice removing the first and second ribs and part of the sternum and ligating the internal mammary artery at its origin. The patients did well after the operation though one died some months later of pulmonary recurrence and another has had some recurrent nodules which have disappeared under the X-ray.

In my opinion the indications for radical operation are considerably wider now-a-days than formerly because with the Halsted operation the parts are so well exposed and the removal of the tumor so radical that recurrences are fewer. In case of recurrence secondary operation will sometimes cure and will often prolong life even if it require resection of the chest wall. The present infiltrated supra-clavicular glands is no longer a contra-indication to radical operation, unless the tumors are extensive and fixed.

The necessity of removing the pectoral muscles has been well shown by Halsted and I have found, where least expected, isolated and minute cancerous nodules within and beneath the muscles. The removal of the muscles produces as Dr. Huntington has said surprisingly little loss of function because of the clavicular fibres of the greater pectoral which are left and the anterior fibres of the deltoid. Loss of the minor pectoral is insignificant for fibrous tissue holds the coracoid process in definite relation with the chest wall taking the place of the muscle. In one case in which in doing a secondary operation for recurrence I had occasion to open this region I found a strong band of cicatricial tissue singularly like the minor pectoral in shape and size and position.

In conclusion I wish to say that in my opinion the Halsted operation meets all the requirements of an operation for carcinoma of the breast in the present state of knowledge of the disease, but for the operation to be curative in a considerable proportion of cases it is necessary that the patients should come to operation earlier than they do. Part of the fault probably lies in the difficulty in diagnosis but much more in the lack of knowledge that women have of the condition and of the paramount necessity for their seeking competent medical advice immediately on discovering a tumor in the breast. I would repeat that there is something seriously wrong with the education of women on this subject when, on the average, they wait 12 months after finding their tumors before they consult their physicians.

NOTES ON STATE HOSPITAL SANITATION.*

By E. A. KELLEY, M. D., Agnew.

THE subject of state hospital sanitation is so complex and of such vital importance that an elaborately written scientific volume along these lines would scarcely satisfy the title. In the comparatively short time at my disposal for the preparation of this paper, I have only been able to assemble together fragmentary notes and observations on the practical side of the question. With an average population of about 1250 adult persons fixedly domiciled at each of the state hospitals, we shall find sanitation problems essentially different from those of the ordinary village or town of equal size.

In making provision for sewage disposal plants for these institutions, obstacles arise which do not present themselves in the handling of ordinary town sewage. The maintenance of cleanliness and the operation of necessary sanitary regulations is complicated at the very beginning by the irresponsible character of the inmates, in whom sensible self-control has been suspended; many of them are accordingly wretchedly careless, so that clothing, underwear, bedding and floors are unnecessarily polluted by sputa, urine, excrement and menstrual discharges, necessitating ceaseless floor cleaning, frequent bathing and enormous quantities of foul-linen laundry work. The mop, mop-bucket, slop-sink, the laundry machines, the bathtub, and the very atmosphere of the living quarters are thus unavoidably contaminated by an excess of excrementitious and putrefactive material, which, under favorable normal conditions would go to the closet-hopper, be burned in the stove, or be thoroughly sterilized by boiling water.

An additional important consideration is the fact that in mental and nervous diseases, digestion and assimilation, secretion and elimination are almost universally sub-normal, and as a result, we have mal-nutrition, blood-poverty, putrefactive changes in the excreta, and recurrent autotoxic infection. The soap and fat refuse from laundry machines and kitchen steam kettles at our hospitals is relatively greater than in ordinary sewage, and the main sewer being as a rule short, the effluent contains these insoluble substances in an almost unchanged condition. Then again the constant daily use of chloride of lime as a purifying agent in laundry work, and for cleansing and disinfecting night vessels, toilet hoppers and slop-sinks suspends bacterial action for the time being, and nature's own effort to purify the effluent is thus chemically antagonized. The lime also corrodes the interior of soil-pipes, leaving them rough, scaly and unsanitary. Paraffine, floor-wax, and raw linseed oil used for polishing the floors contribute other troublesome ingredients to institution sewage when removed periodically by scrubbing. Frequent blockades in traps and soil-pipes causing overflow and fouling of the closet-room result from patients crowding garments, rags, shoes, meat bones, etc., into the hoppers.

From memoranda kindly furnished to me by Dr. F. W. Hatch, General Superintendent of State Hospitals, I offer the following brief synopsis of present sanitary conditions in California institutions:

The Stockton hospital with a population of about 1650, is situated within the city limits, and is connected directly with the city system of sewers, the flow in which is efficiently handled by a pumping plant and finally discharged into the river.

At the Southern California State Hospital, the main sewer discharges into two large open tanks, located on the farm at a distance from the buildings, and the overflow therefrom is utilized for irrigation of corn, beets, carrots, and other crops which are cultivated for stock feed. The plumbing system is fairly good, with soil-pipes generally exposed, and house ventilation well provided for.

At the Napa hospital, there is now under process of construction a thoroughly modern system of plumbing; every basin, sink, bathtub and toilet hopper is being individually vented by the use of a sanitary "Y" connected up on an acute angle with a vertical galvanized iron vent-pipe, leading above the roof: numerous cleanout plugs are placed in the main branches of the soil-pipes and are easily accessible. The basins, bathtubs, and toilet hoppers are modern in design and the specifications call for first class workmanship. Here the main sewer discharges into the Napa River, where a decided tide and salt-water serve to simplify purification.

At the Agnews State Hospital, contracts have recently been let for complete modern replumbing of the administration and main ward buildings. The system of work to be installed here will be similar to that at Napa, and from observation of that now under way in the administration building, we have assurance that most excellent sanitary results will be realized. Our main sewer at this institution discharges its flow into

*Read before the California Public Health Association, October, 1904.

a slough or arm of the bay some two miles distant, and thus gains the advantage of tides and salt-water.

The Mendocino State Hospital and the Home for Feeble-Minded have recently been equipped with a new system of septic-tank sewage disposal. In a recent paper on this system written by W. D. Wyllie, of Chicago, a designer and contractor for such plants, I have found the following description of its technical operation, to-wit:

"The main sewer discharges into a grit-chamber of suitable dimensions and thence the sewage is delivered into the septic-tank through specially designed inlets discharging below the water line. In the septic-tank the solids present in the sewage are separated and retained, rising to the top or settling to the bottom according to their specific gravity, and the organic matter is acted upon by the liquefying micro-organisms developed therein, by which it is broken down into simpler substances, capable of being dealt with by filtration. Having thus arrested the solid matter, we draw off the clear water between the scum on the surface and the heavy deposit which lies at the bottom of the tank. To avoid swift currents which would carry solid particles over, a specially slotted pipe is placed two feet below the surface, and through this the effluent passes in a thin sheet the whole width of the tank, and is discharged into the effluent chamber. Fortunately, sewage contains within itself the germs or seeds of its own destruction. Under the conditions provided in the septic-tank, these tiny scavengers attack these impurities of the sewage and gradually resolve them into simpler forms. The scum which covers the surface is full of bacteria, which set up the fermentation and decomposition by which the solid matter is eventually broken down.

As the outcome of these operations, we get an effluent practically free from solid matter, and showing a marked purification even as regards the impurities in solution. The whole of the sewage solids, however, will not as a rule be completely soluble, so that there will generally remain a small amount of residue or ash, just as there would be if the substances were burned. Any of this mineral detritus which may escape from the grit-chamber, together with insoluble matter, from the sewage solids, will accumulate slowly in the tank, and in order that this may be removed without disturbing the liquid contents of the tank, a slotted pipe is laid across the end of the tank leading to a cleaning-well. By opening a valve in the latter, the deposit from the end of the tank can be drawn off when necessary. According to the size of the installation, from three to five filter-beds are used and filled with furnace clinkers or other approved filtering material, screened and freed from dust. The tank effluent is distributed over each filter in turn through vitrified channels laid near the surface of the filtering material, and fed by main distributors. The filtration of the sewage effluent must necessarily be intermittent: otherwise there could be no real purification and the filter would soon become exceedingly foul. The reason for this will be apparent when we bear in mind that the working of a filter consists in oxydizing the polluting matter in the effluent. The effluent should remain in the filter from two to four hours, during which period the impurities present in solution are oxydized by the bacteria attached to the surface of the filtering medium. An automatically operated discharge-valve is then opened and the filtered effluent escapes, drawing down after it a supply of air into every crevice of the filter. The alternate filling and emptying of the series of filter-beds allows each one in turn to drain and aerate, thus making them self-cleansing and capable of almost continuous automatic renewal. The tank effluent being free from solids, is in admirable condition for irrigation purposes, and may be utilized thus to advantage."

The septic-tank sewage plant installed at Mendocino hospital is reported to be doing satisfactory work; the one at the Home for Feeble-Minded has but recently been completed, and time enough has not yet elapsed to pronounce upon its efficiency.

In the synopsis given of California state hospital sewage disposal, we have direct discharge into city sewer, direct discharge into river and bay with tide and salt-water, broad irrigation from open overflow tanks, and finally the more modern septic-tank system.

Notes on Eastern Hospitals. During the month of June, I visited the state hospitals located in Buffalo, New York, Toledo and Massilon, Ohio, Indianapolis, Indiana, and Cherokee, Iowa. From my note book, I have culled a few observations bearing upon the general subject of better sanitation.

Two salient features at Toledo, Ohio, were first, the splendidly built congregate dining-rooms for patients, capable of seating 500 persons, with a well-drilled corps of table waiters in addition to the regular ward attendants; the entire floor of tiling, the ceiling high, ventilation perfect, and the whole interior finished in oak; second, a series of attractive two-story cottages with day-rooms on the first floor, and sleeping quarters on the second, giving opportunity for classification in harmonious groups, and in the matter of care-taking, the day attendants in smooth-walled rectangular rooms had a great advantage in controlling pernicious untidy habits of patients, and the night nurses, by persistent vigilance had almost entirely eliminated untidiness in soiling of beds at night; a sanitary toilet-room connected with each large dormitory was substituted for 12 foul-smelling night vessels.

At Indianapolis, Indiana, I was most impressed by the thoroughly good work they are doing in their pathological laboratory. A separate two-story building for this purpose, containing 19 workrooms and good sized students' amphitheatre, constructed of cut stone and pressed brick, was erected in 1895, and equipped in 1896. On the first floor are the following rooms: General reception, mortuary, dissecting, furnace, chemical laboratory, anatomical and pathological museum, and 2 for clinical lectures. The second floor has these rooms: Pathologist's study, records, photography, models, charts, diagrams, library and conference, microscopical laboratory, bacteriological laboratory, and pathologist's research (private).

The total cost of equipment was $7850.00, and the facilities for clinical study and bacteriological work therein, are utilized by the two medical colleges in the city, and the medical profession of the whole state. An atmosphere of studious scientific research permeates the medical staff of that institution and it is along these lines that sanitary science must travel for the material betterment of any community.

At Massilon, Ohio, and Cherokee, Iowa, I found palatial establishments for the care of the insane: granite, marble, pressed brick, finest hardwood interior finish, slate and tile roofs, copper cornices, plate glass, expensive hardware and massive furniture. The plumbing in each of these hospitals was superb, and the ventilation by means of electric-motor fans seemed to be perfect. The main hall, kitchen, laundry, engine room, and lavatory floors were of tile: the inside wall surfaces in these departments and in all lavatories, bathrooms and toilets, were of marble and vitrified brick.

At each of these institutions, there was a special sterilizing washing-machine situated in an annex to the main laundry, to which all foul linen was sent.

Congregate dining-rooms in separate buildings eliminated pantry sinks and foul-smelling dumb-waiter shafts from the living apartments of patients. Separate day-rooms, hardwood floors, absence of night vessels, and vigilance of night nurses reduced to a minimum unsanitary features.

In the modern hospital equipment, Gegenstrom rain-baths and spray showers have largely supplanted the old iron bathtubs with ever-scaling enamel and small choked outlets.

Electrical and hydro-therapeutic departments add most valuable scientific accessories to these institutions, and splendid work is being done.

The Superintendent and Board of Managers of the Agnews State Hospital have, during the past two years, recommended and accomplished some important work bearing on the better sanitation of this institution. First, the erection of a steel water-tower and capacious new tanks for the storage and distribution of water pumped from the artesian wells, guarantees a most wholesome water supply. The erection of a new two-story cottage for 100 female patients with sun in every room and modern sanitary plumbing and ventilation is a splendid improvement and will relieve overcrowded wards.

The equipment of a complete pathological laboratory at Agnews is a new feature in California hospitals for the insane, and we have thereby been enabled to do some original research work. Analysis of food supplies, sputa, blood, urine, dejecta, etc., have been carefully made, and a few years hence, these ac-

cumulated records will be valuable; microscopical examinations of interesting specimens found in frequently made autopsies will likewise add materially to the completeness of our clinical records.

By the appointment of a state expert in plumbing, the Commission in Lunacy is endeavoring to put this part of our state hospitals in first-class sanitary condition. The state of California is now more than ordinarily fortunate in having three distinguished medical men on this commission, each and every one of whom is intensely interested in providing the best possible sanitation for these permanent institutions. The medical officers of these hospitals feel that any reasonable measure pertaining to the welfare and more scientific treatment of the insane will receive intelligent special consideration at the hands of this Commission. On the other hand, the work we may do, will, we fully realize, be professionally criticized by this Commission, and sharp corrections administered when deserved. Given a good equipment and fair opportunity, the average man be he lay or professional will do his very best work under strong pressure. The State Commission in Lunacy will in due course of time furnish the equipment: it devolves upon the medical officers to utilize it for the betterment of the service.

MEDICAL INSPECTION OF SCHOOLS.*

EDWARD VON ADELUNG, M. D., Oakland.

MEDICAL inspection of school-children as a form of preventive medicine, has grown in importance in recent years, and now attracts the attention of all educators as well as of all officials whose duty it is to protect the community against disease. But medical inspection is no new idea. An efficient system can be found in Egypt which dates back 22 years, in Belgium for over 26 years, in France for 20 years. It has been in vogue for a long time in Switzerland, England, Germany, Russia, and Scotland. It was inaugurated in Japan in 1893. In the United States, it was first adopted in Boston in 1894 and Brookline soon followed Boston's example. In 1895 Chicago adopted it, and New York in 1897. Since then, many other cities have followed, including Philadelphia, Newton (Mass.), St. Louis, Fall River (Mass.), Washington (D. C.), Orange (N. J.), Jersey City, Asbury Park, Milwaukee, Minneapolis, Salt Lake City, Cleveland, Hartford (Conn.), Cambridge (Mass.), Providence (R. I.), and San Francisco.

But before going further, let me stop and give a general idea of what the system is. This is best accomplished by stating what is done and how it is done.

The inspector usually makes his morning visit to the school between 9 and 10, giving the teachers time to note who appear to be ill and to have them in the principal's office ready for the medical examination when the inspector arrives. The nature of the examinations, their thoroughness, etc., depends upon the desire of the special board controlling the system. The contagious diseases are always sought and when found, the principal fills out an appropriate blank to the parent and immediately sends the child home, to be excluded until cured. It is the duty of the inspector to notify the health department, if it is a notifiable disease.

If a non-transmissible disease is discovered a similar note is sent home with the child advising consultation with the family physician. In all cases it is the principal of the school who sends the child home, and who writes the notes. It should be impressed here that the system is one of *inspection* and has nothing to do with correcting the ills that it discovers. The inspector never gives medical advice, never prescribes. This duty is left to the family physician strictly. Cases of sore throat are swabbed by the inspector and exclusion depends on the laboratory report, unless the clinical symptoms are themselves sufficiently positive.

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The duties of the inspector vary with the conditions under which he works. If he is giving his services gratuitously, they are naturally limited, usually to the detection of contagious diseases. If he is salaried, he usually does more, including inspections for physical deformities, defects of sight or hearing, nervous troubles, overwork, any serious disease, and in some cases he inspects the sanitary conditions about the school. If he devotes his whole time to his official duties his field of usefulness is wide and includes the functions of a deputy health officer in his district. He then follows sick children to their homes, superintends placarding, fumigation, quarantining, and in some cases investigates the cause of absences from school of all absentees, and thus becomes a kind of truant officer as well. But it is not at all necessary that a medical inspector's duties should include so much.

Usually, the inspectors are practicing physicians, their official salaries are small, and their duties are limited to discovering the transmissible and the more important non-transmissible diseases in the manner indicated. Should the occurrence of a number of cases of a contagious disease such as diphtheria threaten an epidemic, he then takes unusual measures. For example, he goes into the class-rooms and makes special inquiries and takes a number of throat cultures. Once each year special examinations may be made of eyes and ears of all pupils, and when advisable, inspection for vaccination scars is made.

In introducing such a system of inspection the question of cost is always brought up. Fortunately the cost is small. The time given each school by the inspector is usually but a few minutes, so that one inspector can visit several schools each morning.

The number of inspectors necessary in any given city depends somewhat on the location of the schools, but it should not be less than one inspector to each 1500 children. Boston inspectors have about 1400 children each.

Services are usually voluntary during the first year or two, and the salaries paid thereafter are about $200.00 a year. Wherever paid medical inspection has been tried, it has proven to be a sound financial investment; and instead of acting as a drain upon the public treasury, the reverse has been found to be the case. In New York City where inspection does not go beyond the detection of the contagious diseases, "it has more than saved an excess in the value of coffins for the potter's field, to far more than pay for the expert service."

Wherever the system has been in operation the cost has proven to be comparatively small, while in Milwaukee the Commission of Health stated that the expense seemed so infinitely small in comparison with the enormous amount of good resulting therefrom, that it seems utterly impossible for any person to raise objections on this account. The sentiments of the writer are identical with those of the Milwaukee Commission of Health. The incredulous sometimes assert that the present conditions are satisfactory. The children seem to be doing well enough, they say, then why inject any new system into the already complicated educational mechanism?

The answer is a recital of facts: "The value of inspection shows itself along numerous lines affecting the condition not only of the child but also of the teacher, the parents, and the community at large. It has proven to be an important factor in the education of children and especially their parents in matters relating to personal and home hygiene and it has directed the attention of health boards and school boards to improvements and reforms which before had not attracted attention."

In quoting figures to show the need of medical inspection, the educational value of the system should not be forgotten. "In Boston from November 1, 1894, to October 31, 1896, out of 23,207 pupils examined there were 6571 cases of disease, and of these 5818

were too ill to be in school. In three months, in New York, 4183 children were excluded from school on account of contagious diseases, out of 63,812 examined." During a period of four months in Chicago, 1417 cases of diphtheria and 306 of scarlet fever were found in the public schools. Such figures speak volumes. Statistics of the efficiency of the system are now so abundant and so convincing and so generally accepted, that further quotations seem unnecessary.

It is a noticeable fact that in those schools where inspection has been introduced, the children are kept cleaner and their parents are more apt to keep ill children at home, thus giving earlier attention to the sick, and at the same time better protection against contagion to the well children in the schools.

After examining the most reliable reports, authorities have placed the number of children in attendance at school who are the subjects of some physical defect or illness which interferes with their work at not less than 10%, and 9% are too ill to study, and are in need of medical attention. I have no doubt that these figures apply to our California schools with the same force as to the eastern. This condition of affairs is too bad to be permitted to continue. It means that our children are not being properly cared for. Pitiful cases are frequently discovered by the inspectors. Whitcomb reports a boy of 13 who was still in the primary grade, utterly incapable of making headway in his studies. On investigation it was found that his hearing was defective and by giving him proper care his success was phenomenal, as he soon outstripped those who were believed to be far his superiors. Innumerable cases of defective hearing, of suppurating ears, of errors of refraction, of eye strain, and of other disorders of special cause are discovered by systematic inspection.

Medical inspection has been proven to protect against epidemics arising among school-children, to prevent the infection of others, and to prevent the spread of contagious diseases. Numerous instances could be cited to show how epidemics have been prevented or curtailed.

Dr. W. W. Keen said: "That it is the duty of the state not only to educate its children, but also to protect their health. You all know very well that at the hotel or boarding house, if a case of scarlet fever or diphtheria breaks out the place is deserted in 48 hours unless the child is taken away; and yet right in the midst of our schools, a case of scarlet fever may exist, or a case of diphtheria break out, and all the children in the school are exposed to it. This is not right and ought not to be." Other competent thinkers express themselves similarly. But it seems to me wholly unnecessary to adduce expert opinion to prove an every day truism. Who can deny that it is the duty of the state to protect from disease contracted at the school the children who are by law required to attend.

If the ultimate object of education is to make good citizens, then who can deny that the dissemination of the ordinary knowledge of the means of avoiding contagious diseases should be a part of such education. To me it seems a great wrong to gather children together four or five hours a day and subject them to the contagion of a fatal disease such as diphtheria or scarlet fever or tuberculosis or even to the milder diseases—measles, whooping cough, chickenpox and the parasitic skin diseases. In 1900 I examined the children in one of the large schools of Oakland and I was surprised to find a large number suffering from diseases that interfered with their progress, some too sick to remain in school, and a very large number affected with transmissible parasitic and skin diseases. The need of medical supervision in the schools is beyond question. That it is the right and duty of the municipality to provide for the necessary care of the children's health is a truism.

That medical inspection produces valuable results is amply proven. That its cost is inconsiderable is demonstrated. That medical inspection will one day be an integral part of all educational departments seems inevitable. Experience shows fully that the system does not, as some have supposed, interfere with the family physician, or with the duties of the teacher, or with discipline, or in any way with the school routine. These objections have all been proven groundless by the experience in the cities where medical inspection is practiced. On the contrary, it requires only a short trial to eliminate all objections and to win the commendation not only of the school department, but of the pupils, the teachers, the parents, and the family physicians.

[Note.—Dr. Lewis S. Somer's most excellent prize essay, "The Medical Inspection of Schools: A Problem in Preventive Medicine," has been used freely in this paper.]

MY EXPERIENCE WITH MEDULLARY NARCOSIS.*

By GEO. W. J. FOWLER, M. D., Santa Clara.

ANESTHETICS have interested our profession since the discovery of ether, chloroform and nitrous oxide. Ours is not a fixed science. It is one that is ever improving in every branch and detail; and we should always be willing to investigate new theories and remedies, such as the one under discussion this evening.

The use of cocaine as an anesthetic introduced into the subarachnoid space was first brought to our notice by Dr. J. Leonard Corning of New York, who first used it in 1884. He was followed by Bier, Guffier and others. Since that time it has been used by many surgeons for operations below and above the diaphragm, and by many of them discarded, owing no doubt to the methods employed. Some dissolved the cocaine and then introduced it into the subarachnoid space; others removed a portion of the fluid from the space and replaced an equal amount of solution containing cocaine. These methods did not prove satisfactory, as they invariably produced alarming symptoms, such as severe headache, vomiting, chills, etc., owing perhaps to the difference in the specific gravity and temperature of the normal fluid and the one the operator introduced.

Other operators have persevered and by perfecting the method of preparation and of administration of the cocaine, they have finally succeeded in placing spinal anesthesia on a par, if not superior to ether or chloroform. I have used this method in 69 cases, covering a period of over two years. Eleven above and fifty-eight below the diaphragm, and I am entirely pleased with it. I have never been obliged to giver a second injection, or use another anesthetic on the same patient.

A few of my patients were naturally very nervous, but by speaking kindly to them, and assuring them that everything was all right, they complained no more, and after the operations were completed they assured me that they imagined the pain. Sometimes they mistake tactile sensation for pain. I am very familiar with ether and chloroform and the symptoms produced when administered. The appearance of the patient during the time and after he has passed through a serious operation is something that we cannot easily forget:

1. The unconscious condition during the operation, and the time in regaining consciousness afterward.
2. The interruption or perhaps the complete arrest of respiration, requiring artificial respiration.
3. The weak condition of the pulse, in many cases requiring strong stimulants.
4. The profane language and fighting of the patient.
5. The prolonged vomiting during and after the operation.
6. The shock.

*Read before the Santa Clara County Medical Society, October, 1904.

All of the above conditions have been absent in my experience with medullary narcosis. We always find the patient more concerned about the anesthetic than the operation.

Now on the other hand, note the patient under the subarachnoid method: The patient is conscious, bright, cheerful, hopeful, temperature normal, pulse normal or slightly increased, able to converse, take food and stimulants, and assist the surgeon quite materially in his work.

The after effects, such as vomiting, suppression of urine and bronchitis, have not occurred in my experience with medullary narcosis.

One patient, a woman, had a severe headache due perhaps to the loss of more fluid than necessary during the act of introducing the needle; she was subject to headaches more or less severe.

This form of analgesia can be used where ether and chloroform would be contra-indicated; such as diseases of the heart, kidneys or lungs. I have not used it within the buccal cavity, but I am convinced it would be superior to any other form, for the patient could control the blood from entering the larynx causing suffocation, etc., and also it removes the anesthetizer and his inhaler from interfering with the movements of the surgeon.

The preparation of cocaine is as follows: Chemically pure cocaine hydrochlorate is sterilized by exposing the crystals to dry heat 300° F. for fifteen minutes. Then it is enclosed in small sterile tubes or papers in doses ranging from 0.1 to 0.5 grain to tube or paper. These tubes or papers are sealed perfectly to keep the contents steril and dry. The small doses are used in the young and very old. The larger doses are used in the robust and where operations are above the diaphragm, especially about head.

The syringe I have used is called *Lurcs*. It has a ground glass, graduated barrel and a ground glass piston. It is readily sterilized and always in perfect order. The needle is made of steel wire tubing size No. 19 (although there are larger sizes) and 3 inches long. The bevel is short with the concave portion dulled to prevent cutting plugs of skin which would obstruct needle, and injuring those fibres of the cord called the cauda equina. The needle should always be kept in a solution of carbonate of soda to prevent rusting.

The method of administration is as follows: Place the patient on the side of the table in a sitting posture, leaning slightly forward to separate the spinous processes, or if impossible to sit upright, on the side. Now imagine a line connecting the crests of the ilium and it will pass over the spine of the fourth lumbar vertebra. The space just above this spine I select to introduce needle. I have an assistant prepare the back in the usual way, green soap, alcohol, ether, etc., and freeze the place with ethyl chloride.

Remember the cord extends to the lower border of the first lumbar vertebra, while the subarachnoid space extends almost to coccyx. So there is no danger of injuring the spinal cord with the point of the needle. Some authorities claim that it does no harm to puncture the cord. I can see no reason to do so when we have ample space to introduce the needle below the end of the cord and accomplish perfect results.

Now introduce the needle just above the spine of the fourth lumbar vertebra in the median line pointing slightly upwards and introduce until it meets with less resistance which can be easily noted by the operator. Usually a drop of fluid will appear at the free end of the needle showing that you have entered the subarachnoid space. Should the needle be closed, it can be opened by requesting the patient to cough, use of stylet, etc. Now place the finger over the end of the needle and connect the syringe which has 0.3 of a grain of cocaine in the barrel, with piston closed; withdraw the piston to about the middle of the barrel of the syringe and by gently working the piston back and forth the cocaine is dissolved. When all is ready you slowly close the piston, if for operations below the diaphragm; if for operations above the diaphragm, especially about the head, inject the solution as rapidly as possible. Of course, the dose of cocaine must be used to conform to age and locality to be operated upon. Withdraw the needle with syringe attached, and close the puncture with collodion or rubber adhesive plaster. It seems to me that the rapid introduction of the solution causes a current to pass from the point of introduction up the subarachnoid space around the brain (which you know is a continuous space), and in that way distributes the cocaine to all parts.

I have been able to operate on a patient below the diaphragm in 5 minutes, and above, about the head, in 20 minutes. Anesthesia has lasted 4 hours to my certain knowledge. If it will last for 4 hours, consider the suffering it saves the patient. It must act locally upon the nerve trunks and especially upon those fibres that control the sensation of pain. The motor nerves seem absolutely normal as every voluntary muscle can be used at the will of the patient with the greatest ease. Tactile sensation is perfect. Therefore it simply has its greatest affinity for fibres that control pain. By its peculiar affinity for these sensory fibres I believe that is the reason we have so little if not in many cases entire absence of shock during operations.

The following are a few cases picked from the 69 to illustrate the results obtained in my hands by the use of medullary narcosis:

1. Louis S., aged 65. Prolapsus of the rectum: Injected 0.3 of a grain of cocaine. Complete analgesia in six minutes; pulse 85; respirations normal; no nausea or vomiting; no pain; operated by Tuttle's new method found in Bryant's new work on operative surgery. No return of trouble. Operation done over one year ago.

2. Mrs. Anna M., aged 48 years, cancer of cervix. Injected 0.3 of a grain of cocaine. Complete analgesia in 8 minutes, No nausea or vomiting, no pain, no change in pulse or respirations. Removed large mass in vagina and cauterized stump.

3. Mrs. Bessie B., aged 20. Laceration of cervix and peroneum. Injected 0.3 of a grain of cocaine. Complete analgesia in 5 minutes. No nausea or vomiting, pulse 80, respiration normal, no headache. Repaired both lacerations at same sitting.

4. Mr. Louis C., aged 64. Lipoma of nose. Injected 0.4 of a grain of cocaine rapidly. Complete analgesia in 18 minutes. Pulse normal, respiration normal, no nausea or vomiting, no pain. Removed tumor and prevented bleeding by the local application of epinephrin solution.

5. Mrs. Emma V., aged 34. Enlarged gland of axilla. Injected 0.4 of a grain of cocaine rapidly. Complete analgesia in 23 minutes. No nausea or vomiting, no pain, pulse 84, respirations 22, no headache following operation.

6. Chas. H. Amputation of leg, lower third. Injected 0.3 of a grain of cocaine. Complete analgesia in 4 minutes. No nausea or vomiting, no pain, pulse and respiration normal, no headache followed operation. Removed stitches on seventh day.

7. Miss Julia B., aged 84. Amputated breast. Small dark hard lump in breast. Injected 0.4 of a grain of cocaine rapidly. Complete analgesia in 20 minutes. No nausea or vomiting, no pain, pulse 90, respirations 24, no headache following operation.

8. Mr. John H., aged 33. Acute unreduced inguinal hernia. Injected 0.3 grain of cocaine slowly. Complete analgesia in 8 minutes. No nausea or vomiting; reduction easy, for patient could make abdominal walls soft and remove all resistance of abdominal muscles.

9. Mrs. Lizzie A., aged 40. Caruncle of meatus. Injected 0.3 of a grain of cocaine. Complete analgesia in 7 minutes. No pain, slight nausea, no vomiting, respirations 20, pulse 90. The patient was a nervous wreck, as is general in similar cases of long standing.

10. Mr. Jos. H., aged 70. Enucleation of eye-ball. Conjunctiva very badly inflamed. Tried to save eye-ball but failed. Injected 0.4 of a grain of cocaine rapidly. Complete analgesia all over body, save conjunctiva, which seemingly caused pain when touched notwithstanding analgesia was complete in every other part. No nausea, no vomiting, pulse and respirations slightly increased.

11. Japanese, aged 19. Amputation of middle third of arm. Gunshot wound of entire forearm. Compound comminuted fracture of both ulnar and radius. Muscles frightfully lacerated; elbow joint shot away. Injected 0.4 of a grain of cocaine rapidly. Complete analgesia in 18 minutes. No pain, increase in pulse and respiration. Vomited once during operation, which gave great relief. Nauseated before operation, due he said to too much whisky. His friends had been too liberal. He wanted to smoke immediately after the operation.

The following, including the above eleven cases, show the variety of operations I have performed using medullary

narcosis; Psoas abscess; reduction of fractured bones; curetting and dilating cervix; removal of cervial glands; hemorrhoids; fistula-in-ano; reduction of shoulder; reduction of hip; reduction of elbow; reduction of inguinal hernia; amputation of part of foot; amputation of part of hand; removal of varicose veins of leg; removal of epithelioma of lower lip; removal of fractured ends of tibia and fibula; resection of elbow joint; removal of ingrowing toenails; removal of large lipoma between shoulders on back; opened abdomen twice; repaired lacerated cervix; amputated toes and fingers; removed head of rib; resected part of two ribs.

A PLEA FOR THE DRUGGIST.*

By J. H. MALLERY, M. D., Eureka.

IN THESE days, when we hear so much of the druggist's shortcomings, when the air is full of his faults, it seems but right that someone should present his side of the question.

For many years the professions of medicine and pharmacy have gone hand in hand. The physician wrote the prescription, or ordered the preparation, and the patient must needs wait until one skilled in the compounding of drugs could put together those agents ordered into the complete mixture. In those days many mixtures were undoubtedly imperfect, and as time passed, the pharmacist, whose whole time was given to this work, studied to improve them, to make them more palatable, to reduce their bulk and eliminate the inert portions, in short to make them more elegant. It was a long and painstaking process, and our modern pharmacy, just as our modern medicine, contains the best thought and effort of all the shining lights of the profession for ages past. Each profession has been the teacher of the other and they have grown and improved side by side. Pharmacy is as old as medicine, it is as dignified as medicine, it is even as important as medicine, for without pharmacy medicine is well-nigh powerless. Where would the average physician be without the man behind the mortar, who covers up his errors, corrects his dosages, and once in a while saves him from a possibly fatal mistake? Therefore gentlemen, I am presenting the case of an old, an honorable, and a necessary profession.

The mixer of draughts and ointments, in short the apothecary, is as old as history. He was an honored member of society in the Old Testament days we know. When the father of medicine was teaching his followers in the Attic groves, the apothecary was mixing his draughts and making his ointments, and day by day improving them. The improvement was slow, until the time of Galen, the first great pharmacist, who taught that pharmaceutical mixtures should be elegant, and so set the goal toward which the profession has been striving ever since. After Galen there came many wise ones, each improving and adding to the lore of pharmacy, each leaving something of the best of his life to the profession he followed. They were all careful, painstaking, hard working men, as became their occupation, and they worked to maintain its ancient dignity and to lift it to even a higher plane.

The secret remedy is as old as time. In the old days it was some miraculous love philter, which owed its wondrous power to the smiles of Venus, or a magic powder, guarding its partaker against evil spirits. It was always, as now, a play on the credulity of the public; and it is no far cry from the potions and philters of the ancients to the thousands of so-called patent medicines which cumber the modern druggist's shelves, because the trusting public believes everything it "sees in the paper."

Then one arose, who saw that while the physicians were learned in their profession, they were mortal men, and so credulous, and he presented to them a mixture, "the formula of a great African physician, now dead," which was a sovereign remedy, not for all the ills of the flesh, but only for those due to disorders of the nervous, digestive, and circulatory systems; and the physicians bit. This remedy was easy to give, because it came put up ready for use, it was easy to write for, because it had a nice short attractive name, and it did the work, many times, because it was harmless and the patient got well in spite of the treatment. Thus arose the first of the great army of ready-made prescriptions, and with it appeared the first wave in the smooth sea over which pharmacy and medicine had been sailing. Many appeared, who, often without adequate knowledge of the art of compounding, mixed up a compound with a carefully obscured formula, and by means of attractive, plausible advertising and a detail man, built up a large and paying business at the expense of the physician and the pharmacist.

The careful druggist, realizing the situation, examined and analyzed many of these ready-made prescriptions and seeing that he could make better himself, did so, and offered them to the medical profession. He found himself forestalled, by the story of a new and secret process of preparation, or of a special method of compounding, and the tale of the greater ability of the man who devoted his whole time to one compound, as against the common druggist. And this in the face of the fact, that some of the more prominent of the "hand-me-downs" are so badly compounded, and contain ingredients of such poor quality that any self-respecting druggist would be ashamed to have them appear under his label. Again, why should we take the word of an unknown manufacturer against the man we meet daily, whose honesty we can judge at close range? The great manufacturer tells us that he uses only the purest chemicals and drugs, that they are compounded with exacting care, but how do we know? On the other hand we can prove the statement of the druggist who fills our prescription, as we can watch him put together the mixtures we have ordered and we can see for ourselves whether his work and materials be good or bad. Still we have taken the word of the man who puts up the ready-made against the man we know, and we have filled the shelves of every prescription pharmacy in the country with these, tying up the druggist's capital and attesting to the credulity and carelessness of the medical profession.

We know that many of the manufacturers are not the models of virtue which they profess to be, as when forced to give formulas for their various nostrums, they have deliberately falsified, and have resorted to more falsification as a defense when they were caught.

As the ready-made prescription man brought about the first breach between the two professions, so, wisely for himself, he wished to widen it and brought the first charge against the druggist; that of substitution. Personally, I do not think that such a thing as substitution exists among reputable pharmacists. But, consider the temptations. If a common drug-clerk can mix a little acetanilid with three very common and inexpensive chemicals, and with the help of a copyrighted name and a yellow tin box make a mixture worth a dollar an ounce, which would be dear at the same price per pound, why should not the druggist make the same mixture and save the profit? And why not indeed? The physician cares little for copyrighted names or tin boxes, he wants results, and the druggist's mixture gives the same or better results. Yet, so thoroughly as the above case has been exploited, there are still men, who in spite of the fact that they could not tell the copyrighted kind from the druggist's by looks, taste or action, insist on an alphabetical tablet or a properly colored box. And this class has done the most to bring about the second charge; that is counter prescribing.

The druggist himself discovered this evil first, and for years the writers in the best drug journals have thundered against it. Still, every druggist is guilty of counter prescribing if you will. He does it in self defense.

The people who go to a druggist seeking medical aid, may be divided into three great classes: those who will see a physician if advised to; those who will see a physician after much coaxing; and those who

*Read at the Annual Meeting of the Humboldt County Medical Society, March 14, 1905.

will not see a physician under any circumstances. The first class, the druggist advises to see a physician, perhaps recommends the particular doctor, the patient sees him and all is well. With the second class he has more trouble. It is composed of those who either consider the trouble too trivial on which to waste a physician's fee, or who know a patent medicine which cured a case exactly like theirs. The druggist may be able to talk him into seeing a physician, but more often he must either sell a patent medicine, of which he knows nothing, or recommend "something better," of his own manufacture usually, which he knows to possess some merit. This he must do or lose a customer, perhaps permanently. The third class is the worst. To it belongs the man who has been unfortunate in the choice of physicians, and who has formed a bad opinion of the entire profession; and the man who knows as much medicine as the doctors. The first may be persuaded, but the last never. The man of the last type informs the druggist that he has a pain, and Dr. Blank uses Anti this or that for pain and he wants some. Or he may have some other ailment and want this or that Ine or Compound or Elixer, "the same Dr. Dash used when my brother was sick." When the druggist demurs and suggests that these are powerful medicines to be used only by physicians, he is probably informed that "Dr. Space told me to keep Antiblank in the house and use it whenever I needed it;" which is unanswerable.

The average man who gets a mixture over the druggist's counter makes his own diagnosis, and if the druggist does not put him up something, either buys a "patent medicine" or finds a man who will accommodate him. Not long ago a man came to me suffering from a severe cold. On inquiring as to previous treatment, I found that he had been taking freely a coal tar and codiene tablet, supposedly put up for physicians' prescriptions only. I asked him how he happened to take them and was informed that "Dr. Blank told me last year that they were good." That was unanswerable. And think, the druggist meets these cases every day.

We as physicians have done much to bring about this condition of things. We have done it through ignorance and thoughtlessness, but we have done it just the same. It is an evil that is sapping the medical man and the pharmacist. Let us as physicians stand with the druggist to remedy this evil. Let us write more for our own formulas, compounded at home and less for the ready-made prescription. Let us think more for ourselves, instead of letting this or that company do our thinking. Protecting the druggist means protecting ourselves. Let us not forget the druggist, who would not forget us, but stand solidly with him for a closer bond and better understanding between the professions against the manufacturer who would convert the druggist into a mere bottling machine and the physician into an automaton signing ready printed prescriptions for Dopine in the original twelve ounce bottles.

WHY SHOULD ROENTGOLOGY BE PRACTICED ONLY BY THE PHYSICIAN?*

By W. LEHMANN, M. D., San Francisco

AMONG all the different names given to the many branches of modern therapy and diagnosis aided by means of "rays," none has been accepted generally for the management of the rays discovered by Roentgen. That name should include the diagnostic as well as the therapeutic use of these rays, and exclude the application of radium, of ultra violet light of different sources, and others. The most generally used expression is radiography, or radiotherapy, in spite of the origin of the word, which would include all other kinds of rays, and in spite of the confusion with radium. The only word which would avoid errors is the word combined with the name of the man who presented us with that powerful agent, and speaking of Roentgoscopy, Roentgography, Roentgotherapy and Roentgology at the same time we would pay an honor which we owe to this man.

Thus, excluding all the different sorts of phototherapy, I would like to concern myself to-night to the handling of the X-rays, or Roentgen rays, and would include in the word Roentgology the therapeutic application of the rays and the use of them as a diagnostic means. From the standpoint from which I look at the matter today we are obliged to speak of each part in a different way. The Roentgotherapy has been developed very greatly in a comparatively short time, and gives undoubtedly excellent results, but a number of treatments, each treatment in a certain position of the patient, it needs a careful handling with the tube and a thorough protection of patient and physician. All that takes time. Likewise it takes time to get good plates and to study them for Roentgo-diagnosis. The busy practitioner, if possessing an X-ray outfit, is soon inclined to give the plates to the photographer, or to go ahead with waiting patients while the one under Roentgo-treatment is watched in the meanwhile by some of his office help.

On the other hand skillful laymen have learned the interesting matter and mastered the technical part within a very short period; they have opened X-ray laboratories to help the busy doctor and to do the Roentgen work for him. Many physicians with the experience that a thorough knowledge of the matter and a careful observation of the many little points—that is to say, that plenty of time is necessary to obtain good results in every case—were only too glad to get such opportunities.

But there are many dangers. One of the most important branches of modern medicine has been left to the laity, and one of the most powerful and at the same time most dangerous remedies has come into discredit oftentimes by accidents occurring through the work of these laymen. After all it does not seem unnecessary to state and to explain some of the many reasons which should force us to hold this potent agent in our own hands and to avoid bad results, the responsibility of which is left to us, nevertheless.

As regards the therapeutic part, it is an almost generally accepted statement that only the doctor should handle this powerful agent. Everybody who deals with the X-ray knows that the results obtained differ very widely according to the apparatus used, to the proper relation of primary current and secondary discharge, to the number of interruptions, and last, but not least, to the changeable vacuum of the tube. We all know that the quality of rays sent out by a high vacuum tube is entirely different from the quality of rays given from a low or soft tube. By means of a very high tube we know that we may treat a patient every day or every other day for a long time without any bad results, without producing a burn, and, therefore, we use that kind of tube in cases in which we intend to treat deep-seated diseases, internal troubles or subcutaneous tumors. On the other hand, we take a low tube in superficial skin diseases in order to produce a reaction of the upper layer of the skin by the least penetrating rays which will be absorbed to a more or less degree by the skin.

According to the nature of the affection to be treated, we differentiate, therefore, between low, medium and high tubes, between tubes of weak or strong light, between light produced by a high number of rapid and short interruptions, or a secondary discharge following less breakages. Following this it is clear that every one who gives X-ray treatments should know his apparatus and its powers, should know all technical things relating to the proper quality or quantity of rays obtained and should know all facts which would change the given condition within a certain time. Ch. L. Leonard, the well-known expert of Philadelphia, said recently: "Varying qualities of Roentgen rays produce different effects, and the

* Read before the San Francisco County Medical Society, April 11, 1905.

quality must be adapted to the individual lesion. The difficulty in administration lies not only in adapting the proper quality of ray and dose to the individual lesions to be treated, but also in the fact that the clinician must know how to produce the dose with a complicated mechanism and must be able to recognize when the right quality and quantity are being employed by their clinical effects. While any dose and any technic will produce some effects, exact dosage is essential to the efficient employment in difficult cases, and as with all other powerful remedies, clinical experience in adapting the dose to the individual patient counts in the final result."

We all know that a tube changes its vacuum and its properties sometimes within a few minutes, and it is not only necessary to observe this changed condition very closely, but it is also necessary to estimate and judge the physiological effect upon the patient. Especially in cases in which we follow the modern rules of Roentgotherapy; that is to say, where we are producing the necessary reaction of the skin by one session, cases where the single treatment usually takes up a longer time, the possible variation of the vacuum-quality is to be considered seriously and carefully. On the other hand, in cases with a slow, gradual treatment upon a deeper affection, such a close observation of the patient and his condition is necessary that only the physician who has given these single treatments and who has followed the course of the disease will be able to estimate the effect and to determine at a given moment whether the treatment should be continued or stopped and the result be waited for. With regard to this latter statement, it is necessary to know each bit of a sign of beginning reaction or dermatitis, and to be able to judge what effects may follow this first appearance. I would like to draw your attention to the fact that a so-called ante-reaction, appearing previously to the real reaction, has been observed in several cases, consisting of an erythema like-redness which follows the treatment within a few hours or days while the true or real reaction usually appears, as you know, within two to four weeks. This preceding reaction, the nature of which lack of time will not allow me to explain tonight, has according to Schmidt, a certain relation to the individual susceptibility towards Roentgen-rays. My experiences show no influence at all upon the resulting effect. In order to diagnose this condition or to exclude it—a very important fact in considering the continuance of the treatment—it is necessary to know the quality of tube used, the distance of the tube from the affected part, the time of exposure, etc. Every one will agree with me that only physicians are able to diagnose conditions of this kind and to estimate their importance.

Another point which should not be overlooked is the late or after-reaction following X-ray treatments, even successful ones, sometimes one or two years afterwards. The atrophy of the skin, the development of more or less superficial teleangiectases depend not only upon the degree of reaction produced, but within one of these degrees reached, upon the quality of the rays changeable every minute.

It does not need to be mentioned that the time of exposure or quality of treatment base not only upon an exact diagnosis, in so far as nearly every affection curable by Roentgen rays has its own indications and rules, but upon an individual handling with the different individuals. It does not seem necessary to state again that only the physician is able to observe this; that only the physician familiar with the Roentgen rays can give treatments with the desired effects.

Not quite as clear seems the question in the diagnostical direction. All these little technical things, the exposure, the developing and fixing of the plate, etc., take up the physician's valuable time to an unallowed degree, and it seems entirely sufficient that the finished plate presented to the physician should enable him to make his diagnosis.

But here are several points to be taken into consideration. Only the man who is familiar with every detail of the technic, who knows the matter practically and theoretically, the drawbacks and advantages of methods in this line, will be able to point out the correct diagnosis. It is easy to find a fracture or dislocation, but to diagnose bonal disease, as, for instance, atrophy or suppuration, or to give the differential diagnostical points in internal troubles, is difficult and needs a thorough acquaintance with the matter. It is necessary in all the more obscure cases to compare Roentgological and clinical findings, or in other words, to use this diagnostical means in a certain relation to the case.

In the first part of this paper I spoke of the different quality of the rays going out from different tubes and accordingly their peculiar effects. The same point has to be considered in the diagnostical use of the Roentgen rays; rays with a small penetrating power will be absorbed by the softer tissues of the body, and will cast a shadow of the muscles or muscular organs while penetrating rays are almost only absorbed by bones, metallic foreign bodies, etc. Soft tubes will show, according to the partial absorption of their rays, differentiations between normal, transparent lung tissue and areas of infiltration, will show the distinct outlines of the branches of bronchi and pulmonary vessels and peribronchitic processes of pathological nature. High tubes, with apparently the same brightness of light, penetrate such lesions and do not allow a diagnosis of this kind at all. While therefore the diagnosis of pleuritic thickening, pericarditic adhesions or lung affections can be made only by means of soft and medium tubes, the same tube will never furnish us a picture of the vertebræ in their structural detail. While, to use another example, the detail of the bones of the head can be demonstrated nicely with a higher tube, the shadow cast by the skull is of a certain equal density, caused by the parietal vault without any regard to the skull contents; soft tubes only do not penetrate these, that is to say, the skull shadow shows differentiations, denser areas corresponding to infiltration or tumors of the brain, only by means of soft tubes.

Likewise with the extremities: only tubes of certain propertics enable us to diagnose pathological changes in the softer tissues like arterio-sclerotic thickening, degeneration of the vessels, or tumors, while the exact relation of the bones in knee or hip joints must be figured out with high tubes.

It is therefore not sufficient to send to the "X-ray man" for a chest plate or a picture of the head, but it is necessary to know something about the lesions to be looked for, viz: "the X-ray man" needs professional knowledge or better, the physician needs to be acquainted with Roentgology. Very often you will not get the results required, if you do not do the work yourself.

A further important feature not to be neglected is the correct position and distance of the Roentgen tube from the object to be represented. A few examples will show that. Sternum and column of dorsal vertebræ and both the right ventricle of the heart and the large vessels will cast one shadow without detail if the tube is in a central position above the chest. In order to separate these shadows, to show, for instance, tuberculosis of the dorsal vertebræ, it is necessary to eliminate the cast of the large vessels and the heart; we are obliged to project the latter shadow sideward and will get the desired result by bringing the tube to one side above the lateral thoracic wall—the rays directed obliquely throw the shadow of the part more distant from the plate further than the shadow of the near part, that is, of the column of the vertebræ.

On the other hand, an exact central position of the tube is needed in cases of heart trouble, for instance. How shall we diagnose an enlargement of the left

ventricle if the tube located above the right side of the thorax gives an enlarged shadow by projection? The example of the joints, especially of the elbow joint shows how necessary the knowledge of anatomy is for the man dealing with Roentgology. You know that the question of osseous union between epiphysis and bone shaft has been settled mainly by the help of the Roentgen rays. According to the development of this union we are able and are now accustomed to judge the age of the individual even from the plate. It should not be necessary to state that the exact knowledge of these things is needed for a diagnosis and yet one often hears the most curious explanation about epinby-eal separation and similar conditions. Still more difficult becomes the question of a possible fracture or dislocation from the fact that normally the shadows of these parts are covering one another in radiographs. We may separate easily, for obvious reasons, these casts but the diagnosis becomes more and more questionable, in the same degree, as we change the picture of the normal relation of the bones.

And furthermore, how shall a person without anatomical knowledge be aware of the fact that, for instance, the neck of the femur can be demonstrated only by rotating the leg inward? Or how shall a person who is not taught anatomy and physiology thoroughly, know that the anterior parts of the lungs sinuses can be represented only if the patient lies on the stomach and the tube is above the clavicles?

All these points are especially of interest in cases where a small plate only shall give a certain part of the body. We know that under the same circumstances, with the very same tube, distance and time of exposure a small plate gives better details and less diffusion than a large one. We know that the results are better by cutting out with diaphragms all unnecessary side light and for that reason we take the diaphragm as small as possible. The secondary rays, the main source of diffused shadow and blurred pictures will be produced in any substance and at any body the rays strike, even in the air; in order to avoid these bad secondary effects we use cylinders as diaphragms as with the "compression-diaphragm." Now by all these procedures we save quite a good deal of money which large plates usually cost, and we get results very far superior to those without such hints, but it becomes at the same time more and more difficult to get the desired part, as for instance, the hip joint in a very stout person, upon the plate. Pressing the tube of the compression diaphragm into the abdomen in order to point out an exact diagnosis in supposed troubles of certain parts like kidney or bladder stones, extra-uterine pregnancy or so, the anatomical features must be borne in mind.

Moreover, in order to verify the exact size and position of the stomach we inflate it with air by means of sound and bulb, or by powders of sodium bicarbonate and tartaric acid, internally given; or we mix with the food bismut emulsion for the purpose of observing the peristaltic power of the bowels. We fill the bladder and the bowels after thorough movement and evacuation with air to get better pictures and better diagnostical results of the abdominal organs. Is it right to let people, unacquainted with the human body and without professional knowledge, try their unexperienced hands upon patients? All these valuable methods for diagnosis are entirely free of danger in the hand of a trained physician and should be directed by him only.

An important part of the Roentgen-diagnosis, not to be forgotten, is the screen examination, which enables us to observe some of the internal organs in motion. We follow with our eyes the excursion of the lungs and the movement of the diaphragm, we compare both sides of the latter and are enabled to draw conclusions regarding to subdiaphragmatical or pulmonary affections which impede the normal motion on one or the other side. Well known and generally recognized is William's sign, lessened motion of the diaphragm on the side of an affected lungs apex. Only recently in an interesting case my attention was drawn to a more close observation of the stomach by the high, almost immovable left diaphragm caused by a big tumor of the stomach revealed thereby.

Anyone who has done orthodiagraphic work knows how far superior this measurement of the real size of the heart is in comparison to even the best and most experienced clinical percussion.

Many examples in this line are easily to be given, in all the value of a close comparison of plate with screen examination becomes apparent. One of the most striking instances is aneurysma of the thoracic aorta, cases in which often only screen examination will furnish the last and most essential differential point against chest tumor, the observation of true pulsation.

It is impossible to leave such methods to the laity, for the sources of error are very great, sometimes even hard to avoid by experts in Roentgen work, and the requirement of good technic in Roentgography cannot be separated from the required knowledge in anatomy and physiology possessed only by the trained medical man.

FATTY DEGENERATION OF THE HEART.*

By P. M. LUSSON, M. D., San Jose.

THERE is a disease so insidious and slow in its usual course that the seal of death is often cast on some people of great intellectual force, while in the active pursuit of their vocation, without their being aware of it; and, were it not that they are liable to suffer from occasional pangs of pain and dyspnea when walking fast or climbing stairs, or some palpitation of the heart with a feeling of suffocation, they would not know that they were sick, so, many valuable lives perish unexpectedly and suddenly. I refer to the disease known as fatty degeneration of the heart.

There are two forms under which fat presents itself as a disease of the heart. In one form the fat, containing oil identical with that found in other parts of the body, grows upon and extends over the surface of the heart; it then encroaches on and insinuates itself between the muscular fibers, in some cases to such an extent as to completely conceal them when the examination is made. In the other form, a fatty matter, composed of granules and small oil globules, occupies and fills the sheaths of what were previously muscular fibers. In the one form of disease, fatty tissue grows on and outside the fibers; in the other, the muscular fiber itself degenerates into molecular fatty matter. This distinction has given rise to the terms "fatty growth and fatty degeneration." The first corresponds to all cases in which fat only constitutes the morbid condition, while the other is restricted to those cases in which the muscular fibers degenerate into fatty matter.

When portions of the heart suffering from fatty growth are examined under the microscope, it will be found that where the growth is most advanced few muscular fibers can be seen, and the intervals between them are occupied by fat cells. Proceeding inward we find the fibers become more evident, the fat cells fewer, and finally we have the fibers beneath the endocardium with a few cells amongst them. The fibers, even when overwhelmed with fat, may retain their organization, but in all cases their course and direction is modified and disturbed. The existence of the fibers, though concealed, explains the persistence of the heart's action in those cases in which the muscular walls appear to be replaced entirely by fat. In some cases, little masses of fat appear beneath the endocardium. They vary in size from that of a pin's head to that of a pea, as described by Dr.

* Read before the Santa Clara County Medical Society, February, 1905.

Peacock and others. The size of the globules of fatty matter rarely exceeds that of the blood corpuscles.

All parts of the heart's muscular fibers are liable to fatty degeneration, but not equally so. It is most frequent in the left ventricle, next in the right ventricle, then in the right auricle, and least frequently in the left auricle.

The heart or the portion of it affected is pale, yellowish, of a dirty pink or whitish color, and this discoloration is often in patches, giving the organ a mottled appearance. Although softening is a general result of this disease, in some cases the heart retains much of its solidity, but the tissue readily breaks down by pressure, as would a lung consolidated by pneumonia. This state usually occurs in hypertrophied hearts. In cases of obstruction of the coronary arteries a small portion only of the heart may be affected.

When a portion of the heart thus diseased is put under the microscope, the first thing we notice is absence of the transverse striæ which mark the fibers of the voluntary, and less distinctly those amongst the involuntary, muscles of the heart. It will be observed that in addition to the faintness with which the cross markings are seen a number of dark small dots stud the fibers in many places. As the observer approaches the seat of more decided disease, he finds that the cross markings have in many points disappeared, and that the black dots have increased in size and number; some of the dots are now found transparent in the center and assume some order in their arrangement. Thus may be traced, as Mr. Poger has described, the change from the particles of molecular fat, the black dot in the fiber, to the large oil globule with its transparent center.

In addition to the changes of color and consistence, there are other appearances in connection with this morbid process. The fibrous character of the heart's structure even to the naked eye disappears, and in some cases the tissue resembles that of a fatty or boiled liver. In other cases, the cut or torn surface has a granular aspect not unlike that of the surface of a lung in an early stage of gray hepatization. These different appearances may be due in some measure to the greater or less fluidity of the oily matter present, as well as to the extent and degree to which the disease has advanced. Varieties also in appearance are caused by the presence of a greater or less quantity of blood or its coloring matter in the heart's texture or in its cavities, by which the lining may in the latter case be dyed a deep purple color. These modifications, however, should not interfere with the leading characters of the disease under consideration.

M. Roketansky describes three forms of fatty disease: First, excessive accumulation on the surface; second, infrusion of fat amongst the fibers constituting what he calls metamorphosis, and, third, degeneration of the fiber, which presents varieties according to the extent, seat and degree of the evil. Mr. Paget has added his anatomical researches of this morbid process.

This disease has also been observed amongst lower animals. Mr. Kent has given a description of a rupture of the heart in a mare. The right ventricle and auricle had undergone fatty degeneration, and old adhesions of the pericardium existed. During life the animal had exhibited several of the symptoms which characterize the disease in man.

While we understand how fat may accumulate in the heart, it is not so easy to know what causes the muscular fibers to be transformed into fat. Thus, in the first instance we know that the materials of the fatty tissue are derived from the blood, and that the heart may partake of it as well as any other tissue. Therefore it would not surprise us to find fatty hearts in fatty individuals; but how are we to explain the degeneration of muscular fibers into fat? This we will now see.

Several hypotheses exist, founded in general on the effects of chemical action as a result of some physiological change. A substance is known to exist called adipocere, and anatomists differ a great deal in opinion of its origin. Nearly all admit the great quantity of fat in its composition; some, however, think that this substance results from the fat originally present, and that the fibrin is destroyed by putrefaction. Others think that the fatty matter is a product of decay. This would seem to be proved by experiments on dead animal matter; but it seems to me that such experiments cannot be relied upon sufficiently for our conviction, if we consider the difference that exists between the chemical actions on tissues possessing vitality and on dead animal matter. If we admit that chemical action supersedes vitality, how is it possible for an organ thus affected to perform its functions? This would seem to contradict itself, from the fact that many have lived many years who suffered from fatty degeneration. It may be said that such persons had the organ only partially affected, and therefore the healthy tissues took supplementary action. But, if we compare the product of fatty degeneration with that obtained by artificial means, how is it possible for the part of an organ thus affected to maintain its vitality? A piece of the muscular part of the thigh of a horse having undergone decay was submitted to examination. In its general appearance it resembled spermacetti; it was darker colored and more fragile. Its surface was marked by irregular outlines of a red color, evidently the boundaries of the fasciculi of the muscular fibers; it emitted a strong ammoniacal odor, floated on water, and was nearly all dissolved in ether. The ether, when allowed to evaporate, left a large quantity of granular and fatty matter. The undissolved residue presented, when suspended in water, a delicate floculent appearance.

From these observations Dr. Quain concludes that whatever be the nature of the process, the places of the muscular fibers, the blood vessels and nerves are occupied by fatty matter which could not have existed in them during life.

Lord Bacon had indicated the mode of converting waste flesh into fat, which might be used for various domestic purposes. Mr. Gibbes succeeded by different processes in converting large quantities of animal flesh, even the carcass of a whole cow, into fatty matter. Mr. Brande states that the action of very diluted nitric acid on some modifications of albumen is also attended by their conversion into an adipocerous substance.

Exclusion from the air and exposure to moisture is said to produce the change of muscular animal tissue into fatty matter. Dr. Barbington has observed the formation of fatty matter in the blood at the expense of the albumen. Dr. Williams, in the first edition of his "Principles of Medicine," recognized the presence of fat in softened tubercles, pus, atheroma and gangrene of the lungs. Dr. Archibald Hall cites a case in which the fibrin of a hemorrhagic effusion into the theca vertebrales, consequent on a fall, was found, after an illness of some months' duration, changed into fat. The fatty matter here formed independently of a direct connection with the vascular system. Here this gives rise to the question whether the fatty matter which is found in degenerated muscle of the heart is derived from a molecular change in the texture, or is the fat deposited from the blood. In answer, Dr. Quain says: "We have seen the substances analagous to muscle in composition converted both in and out of the body into the same fatty matter. We have also traced the muscular fiber out of the body undergoing a change identical with that which it undergoes in the living body. There is, therefore, a presumption in favor of the view that the processes in both cases are identical; that, in fact, when the protein compounds, albumen and fibrin, are effused in a form not susceptible of organization, they degenerate and pass into the state of fatty matter.

In other words, that when the vital power which belongs to the products of animal organization is weakened or destroyed, they yield to the physical and chemical influences which surround them and descend into a class which is shared by them in common with plants and minerals."

When fatty degeneration depends on constitutional causes, it is generally found in persons who have suffered from exhausting diseases. Dr. Ormerod cites twenty-five cases, of which three had suffered from hemorrhage, three from phthisis, one from delirium tremens, one from cancer, two from fever.

If we believe that a want of proper nutrition is a general cause of fatty degeneration of the heart, we must admit that any cause that weakens the elaborating powers of nutrition predisposes to it as it tends to diminish the supply of blood as well as any disease acting directly on this fluid, impairing its quality, or reducing its quantity. Therefore, in the treatment of this disease, we should always bear in mind the important role played by the blood so as to apply the proper remedies.

Fatty degeneration connected chiefly with a local diminution of nutrition is generally due to ossification or obstruction of the coronary arteries. Dr. Quain says: "In all cases examined by myself (except in a case of phthisis, and some allied with it), I have found these vessels obstructed more or less. I have also seen the coronary artery extremely ossified, going directly to the only part of the heart affected. This connection between fatty softened heart and obstructed arteries suggests an analogy with softening of the brain, in which a like condition of the vessel exists."

Mr. Paget has shown that in cerebral apoplexy, fatty degeneration of the small cerebral arteries is present in many cases. Another fact mentioned by Mr. Swan relative to the association of the obstructed arteries with fatty degeneration is that the disease of the arteries is itself an evidence of the more or less impaired state of nutrition throughout the sytem, and that there is no free communication between the coronary arteries; hence, when one is obstructed and ceases to perform its function, the other cannot supply the part affected. Endo- and pericarditis are also found connected with this disease. Mr. Paget in his lectures also describes the effects of inflammation in producing atrophy and degeneration not only of the heart, but also of the kidneys, liver, etc.

Dr. Williams in his "Principles of Medicine," second edition, says: "Under whatever circumstances the fatty transformation occurs, it is obviously a process of degeneration, or degradation to a very low scale of animal or even vegetable life (its occurrence in gangrene is a striking illustration of this point), and both the vital and physical properties of the organs which it invades become lowered and otherwise injured. Thus muscles so degenerated lose much of their contractile power, and if subjected to distention, as in the heart, become dilated, and may be ruptured."

In thirty-three cases recorded of fatty degeneration of the heart, twenty-three were found hypertrophied, proving this to be a general association of the disease. It may be a cause or a result of this affectation.

Rupture of the Heart.—The softness and friability of this organ resulting from this disease gives rise to very serious lesions. Dr. Quain reports eight cases in thirty-three where rupture of the heart occurred from fatty degeneration. Extreme dilatation may precede this fatal result. This accident is not unfrequent in a hypertrophied condition of the organ under consideration.

In this affection the parietes are very often unequally thickened, and as the ventricle contracts with much more than the usual force, the thinnest portion is very apt to give way. As the ventricle is thinnest at the apex, it would seem fair to infer that the rupture must take place more frequently at or near that point. The fact is that it often occurs there; but it is asserted that a more frequent seat of the accident is on the thickest part of the heart. The only explanation of this fact seems to be that in hypertrophy the muscular substance loses cohesiveness in a greater degree than contractile force, and that a rupture takes place from a sudden and violent action of that muscle. Contraction of some of the orifices has been noticed in many cases of rupture of the heart. Ulceration and abscesses may cause this accident by reducing the walls to a degree of thinness below the state required for the resistance to which they are exposed. Effusion of blood into the substance of the heart is also among the causes. This generally occurs in partial rupture.

In cases when the disease affects directly the functions of the heart, various symptoms occur, such as modifications of the phenomena of drowsiness, coma, faintness, syncope, breathlessness and pain in the region of the heart. The patient complains in the earliest stages of being easily exhausted, particularly in mounting heights; though not giddy, he feels as if he must fall, and though not breathless nor panting, sighs deeply and seeks for air. Excitement or a close or heated atmosphere produces the same effect; at the same time there is often experienced an uncomfortable feeling of choking or fullness in the chest. In the cases where the fibers of the heart undergo atrophy, there are weakness and irregularity of pulse with feeble impulse and diminished sound. When these symptoms occur in very fat persons they may be referred to obesity, if no cardiac disease exists, as they have been remarked to increase or diminish with an increase or diminution of the general fatness. As the disease advances the attacks become more frequent and severe, and often disturb and distress the patient at night, and he suffers excessively from heat. The temper has been observed to become irritable, and in many cases the expression of the features appears anxious, and frequently the color of the skin is sallow.

The arcus senilis has often been observed to accompany this disease, and it may always be taken as a symptom of predisposition to fatty degeneration.

The pulse is generally affected; but the mode in which it is, so depends no doubt upon the part of the heart that is affected and the extent and degree of the disease. Irregularity is the most frequent alteration, weakness is almost always present, slowness is occasionally present, and even then the pulse is weak.

The physical signs are few, but very distinct in some cases. They are feeble impulse of the heart proportioned to the degree of the affection. The first sound is feeble and scarcely audible in some cases, and when the heart is enlarged there is extended dullness.

Hereditary tendency is a well-known cause of this disease. I have traced it through three generations.

Treatment.—When the disease is fully established, it is incurable; at least we have no evidence that muscular fibers can be restored after they have been destroyed. Patients may live many years with it, but are apt to sink suddenly under the effects of any exhausting disease, shock, sudden excitement or efforts requiring strength; all that can be done is to arrest for a time the progress of the disease by improving the quality of the blood, thus supporting the portions of the organs still unaffected. Attention to the digestive organs is very important, bitter tonics with nux vomica, alkalies and subsequently iron are the best remedies, and in addition heart tonics given in small doses with caffein (the latter specially) or good Java coffee.

The habits should be regulated, avoidance of any over-exertion, plenty of pure air, nourishing but digestible food, and everything that may improve the strength and general health; narcotics should be avoided, but antispasmodics in the paroxismal attacks are very useful; mustard plasters and hot applications during spells of pain tend to afford relief, and only as a last resort codeine with hyosciasmus may be used.

THE RADICAL MASTOID OPERATION FOR CHRONIC SUPPURATION OF THE MIDDLE EAR, WITH A REPORT OF TWO CASES.*

By CULLEN F. WELTY, M. D., San Francisco.

[The 2 cases referred to here, together with 7 others, were presented at the 35th annual meeting of the State Society, and will be published subsequently.—ED.]

IN THE first place, it is very important to understand just what is done in this operation; the literature is somewhat confusing, so I will begin with Professor Schwartze, of Halle, A. S., who was the first to operate for chronic suppurative otitis media.

He established communication between the diseased process in the mastoid and the tympanic cavity so as to allow the parts to be thoroughly cleansed. This operation was followed for a long time, and is done by some surgeons to-day; however, it has been found that quite a number of the patients do not recover entirely, as the disease was located in the antrum or the walls of the tympanic cavity. During the last 12 or 14 years this operation has been considerably modified, and it is said that Professor Küster was the first to do this in a more practical way. He removed the posterior wall of the osseous meatus, so that the accessory cavities would be in communication, and could be better treated. This was a very important step in the operation, but at the same time it was difficult, and sometimes impossible, to effect an entire cure.

Stacke and Zaufal have the credit of perfecting this work. However, they proceed in different ways. The typical Stacke operation has a place by itself, as very useful when the lateral sinus encroaches so much on the posterior osseous canal that you cannot enter in the usual way. In his operation he opens the attic and antrum, working from within outwards, removing all of these parts. In seeing this operation, or doing it yourself for the first time, you are very much taken with the procedure; but the more you use it the more you discover the underlying dangers associated with it. The principal one is that you are working in a small blind cavity, and very liable to do harm. Of course you can follow the diseased process just as well and remove all the mastoid cells, if necessary; but the greater number of ear surgeons prefer Zaufal's modification, which is a removal of the posterior superior part of the osseous canal, with the anterior part of the mastoid, then opening the antrum and attic by removal of the outer wall. This is the so-called radical mastoid operation, or the "total aufmeiszlung" of the Germans. The indications for this operation are founded on sound surgical principals, and deserve the most careful consideration from all. I do not believe there is a physician or surgeon here who will not agree with me if he looks at the case from a surgical standpoint. We divide the indications for operation into objective and subjective symptoms; the objective symptoms are further divided:

1. Caries of the temporal bone. 2. Extensive growth of polypi which have a tendency to recur after removal. They may also be associated with pus retention. 3. Fistulous openings of the mastoid process, or the osseous meatus. 4. Cholesteatoma of the middle ear that cannot be cured by treatment, or by the extraction of the hammer and the incus, which I do not recommend. 5. Cases of obstinate antrum suppuration, containing small masses of epidermis. 6. Membranous strictures of the external meatus, or those due to hyperostoses, because of the danger of pus retention. 7. Paresis, or paralysis of the facial nerve occurring in the course of chronic suppuration of the middle ear, when the aural examination points to caries of the temporal bone, or if the paralysis develops with symptoms of intercurrent acute middle ear suppuration. 8. Acute mastoiditis with the formation of a mastoid abscess occurring during the course of chronic middle ear suppuration. 9. Chronic middle ear suppuration with symptoms of beginning tuberculosis. This is a very important branch of the subject, a great deal can be said for and against operative interference. From the clinical work I have seen and done, I am firmly convinced that primary tuberculosis of the middle ear or of the temporal bone is extremely rare. I acknowledge the possibility, but should it be present, the sooner it is operated upon the greater the chance of recovery. Of course there is practically no chance of recovery without operation, death from general tuberculosis, or from the various cerebral complications being sure to follow. Many of these patients do not get well because the operation has been put off until such complications develop as cannot be thoroughly eradicated.

I make the following quotations: Brieger, in a recent publication on tuberculosis of the middle ear, reported his findings in 241 patients who had died of tuberculosis. Of this number, 37 showed chronic inflammatory process of the ear. Eighteen times the tubercular nature of this inflammation could be demonstrated. In 7 cases the tuberculosis had attacked the labyrinth. The perforation from the middle ear took place 3 times through the round window, twice through the oval window, and twice through both. Garbini and Ballestri, *Italian Archives of Otology*, Vol. 9, p. 181: In the report of 40 cases of chronic suppuration of the middle ear accompanied by caries, the tubercular process was demonstrated in 4 by means of bacteriological examination and experiments upon animals. Körner, Hauel, Grünert, Barnick, Piffl, Haike, Bar, each report one case of tuberculosis of the ear and temporal bone. In each and every case the appearance and the clinical history pointed to tuberculosis, which was confirmed by microscopical examination. In a recent publication, Grünert makes the following statement in regard to tuberculosis: "There is as yet no agreement among specialists as to the answer to the elementary questions, how often suppurations of the middle ear are of a tubercular nature, and how often a suppurating middle ear is to be regarded only as a port of entrance of a secondary tubercular affection." In regard to the first question, authors are directly opposed to each other. The general surgeons frequently maintain that chronic suppuration of the middle ear is tubercular in the majority of cases. On the other hand the influence of tuberculosis in causing suppuration of the middle ear is minimized by others. The investigations hitherto carried out with this point in view, have not been entirely convincing. It is due to the fact that usually the investigator has confined himself to the bacteriological examination of the aural discharge, a negative result of which is no proof that it is not tuberculosis.

10. Fetid middle ear suppuration that resists treatment, the discharge remaining fetid, which is indicative of necrosis or of cholesteatoma.

11. Chronic middle ear suppuration that resists *all* forms of treatment. In this particular, aural surgeons are divided: but I can truthfully say that the most progressive men are in favor of operation. I mean by that that these cases should be under rational systematic treatment from 1 to 4 months. If you cannot cure your patient in this length of time, it is reasonable to suppose that you are dealing with an incurable affection. I do not believe one of you would advise the non-interference of a chronic suppuration of any other part of the body; why should you make a difference when it is associated with the ear? The anatomical relations are such that by non-interference you are *more* liable to have *more* serious consequences than from a similar discharge anywhere else.

I quote from memory; if not right, I stand to be corrected. A German author says that every fifth person has some ear defect. This defect may be insignificant, and give the patient no trouble at all. Probably 50% of this number consult physicians. Of this 50%, every

* Read before the San Francisco County Medical Society, Nov., 1905.

tenth* patient has a chronic suppurative otitis media. At this rate, San Francisco, with a population of 500,000, has 5,000 cases of chronic suppurative otitis media. Of this number, probably 1,000 are under treatment. I am confident that quite a percentage of these untreated, and possibly treated, patients are dying from cerebral complications, such as extradural abscess, brain abscess, meningitis, perisinous abscess and sinous thrombosis, which are very hard at times for the general practitioner to recognize, because he has usually considered these chronic discharges as more or less insignificant.

Statistics in relation to intercranial complications.—Pitt, in performing 9,000 autopsies, found that death was due to chronic suppuration of the middle ear in 57; Barker, in 8,028 autopsies, 45 cases; Gruber, in 40,073 autopsies in the Vienna General Hospital, 232 cases. This makes a total of 57,101 autopsies, and 334 deaths from chronic suppuration, which is approximately one death in 170 cases. Estimating San Francisco, with a population of 500,000, at a death rate of 14 per thousand, we find that we have 7,000 deaths, which would show that we have 41 persons dying from cerebral complications each year due to chronic suppuration of the middle ear. Politzer says, in relation to these statistics, that the number must be much greater if we bear in mind that only a small percentage of the chronic middle ear suppurations are taken to a hospital; and he says that these figures should be doubled. This would indicate that the profession at large has not altogether recognized the importance of chronic suppuration of the middle ear.

There is not a field in surgery that demands more careful consideration. If you operate as I advise, you will practically eliminate all the cerebral complications and others too numerous to mention. In operating for cerebral complications, you have a mortality of something like 50%. This will be reduced to a minimum. The patients do not all recover from the discharge following the radical operation; but I can truthfully say that the danger of dying from cerebral complications is practically nil. I arrive at these conclusions from studying from 600 to 700 operations which I have either seen, assisted in or performed myself. The mortality following this operation, after the cerebral complications have been eliminated, is less than one-half of one per cent, and this is due to lack of proper aseptic dressing. Macewen's tables show that 80% or 90% of the cases of chronic brain surgery are due to chronic suppuration of the middle ear.

12. a, b and c, when associated with some other symptoms.

(a) Remittent or continuous fever, associated with great rise of temperature after a chill or a rigor; the characteristic septic fever with rapid variations of temperature.

(b) Vomiting, when associated with some other cerebral symptoms.

(c) The condition of the fundus oculi, as dilatation of blood vessels, retinitis optica, papilitis and choked disc, found in 50% of the otitic complications.

Subjective Symptoms.—These are never taken alone, but must be associated with other subjective or objective symptoms.

1. Continuous or recurring pain in the ear or mastoid process.

2. Persistent headache on the corresponding side. Temporary or continuous attacks of dizziness.

3. The first signs of cerebral complication, such as severe headache, nausea and vomiting.

I have neglected to speak of the nose and the naso-pharynx in relation to chronic suppuration of the middle ear. Briefly, the nose and the naso-pharynx must be put in an absolutely healthy condition before any form of treatment for chronic suppuration of the middle ear is begun.

Statistics in relation to the function of hearing following the radical operation.—Dozent Hammerschlag of the Politzer clinic collected all the reports of operations from 1895 to 1897, showing by these that in the majority there was no essential difference in the hearing. A small percentage showed an improvement. About the same number did not hear as well. Wagner's report, 1893, is about the same as Hammerschlag's. Stacke reports 100 cases; hearing improved 51 times; made worse 6 times, and in about half it remained unaltered. Grünert improved the hearing in 55%, changed for the worse in 6%, unchanged 39%. This increase or diminution in hearing after the operation is dependent on the amount of cicatricial tissue that binds the stapes. Körner says that when the labyrinth is not affected the hearing will always be improved.

Statistics in relation to complete recovery.—Complete recovery depends to a great extent on the parts involved, to the extent of the disease, and to the development of intercranial complications. The prognosis is more favorable in cases of caries of the attic or antrum and mastoid process; fistulous openings of the posterior wall; membranous strictures of the external meatus, etc. The prognosis is not so favorable in cholesteatoma; extensive caries of the labyrinth; tuberculosis of the temporal bone; intercranial complications. Duration of treatment varies from 3 to 9 months.

Stacke reports 100 cases; 94 cured, 3 died from cerebral complications, 2 remained away, 1 dismissed not cured. Grünert reports 200; 99 healed, 37 dry but requiring periodical attention, 34 not healed, 10 died from cerebral complications, 1 from meningitis during the after-treatment, 19 not reported. Trautmann cured 70%, Schwartze 74%, Politzer 85%. Professor Grünert has just published the statistics for his last year's operative work. He had 93 patients operated upon; 53 cured, 7 deaths due to cranial complications, 4 temporarily benefited, 4 not benefited, 1 disappeared, and 22 remaining under treatment. The reason so many remain under treatment is that the year's work ended April 1, 1904. The publication was made in July. When sufficient time elapses, I believe this will show the best results published regarding complete recovery. One of the deaths was due to carcinoma. The average duration of the cures was 4½ months.

*By investigation of some 30,000 cases of diseases of the ear, I find it to be one in every sixth patient suffering from an ear affection.

CLINICAL FINDINGS USUALLY OVERLOOKED IN MUCOMEMBRANOUS ENTEROCOLITIS.*

By JNO. J. GAYNOR, M. D., Eureka.

ONE of the commonest diseases seen in sanatorium practice is mucomembranous enterocolitis. Since this affection is three times more frequent in women than in men, I will describe the patient and the disease as I have seen them in women. While the bodily habit of the patient may be the obese-anemic, the lank type is the class in which mucomembranous enterocolitis is oftenest found. The expression of the face is a cross between the peritoneal and the uterine, while the color is midway between cancer and tuberculosis. If given to making a snap diagnosis, the disease might be guessed from the general make-up of the patient. It is equally true that a physician on the lookout for these cases may be the first to make the diagnosis, though the patient may have been through a dozen hands and had an abdominal section for some supposed tube-ovarian difficulty. In fact the woman who, with a sub-developed mucomembranous enterocolitis, escapes an abdominal section for supposed utero-ovarian diseases may consider herself a lucky individual. The surgery that is helpful in these cases is an operation for piles and an abdominal section for ptosis of the abdominal organs, especially a section above the umbilicus through which the stomach is replaced and tacked to the abdominal wall, bringing the transverse colon up into place with it.

*Read before the Humboldt County Medical Society.

A patient suspected of having mucomembranous enterocolitis, being put on the examining table, the neglected clinical findings are about as follows: The patient is needled for anesthetic and hyperesthetic areas over the brows, face, breasts, hepatic and splenic flexures of the colon, as well as over the cecum and sigmoid, or, more exactly, over a palm's space a little below the middle of lines drawn from the umbilicus to the anterior-superior spines of the ilia. The conjunctival and pharyngeal reflexes are examined and found wanting. In a word, the stigmata of hysteria are looked for and usually found to be very well marked. Hysterical hip-joint, knee-joint and other evidences of neuro-arthritism are not forgotten; for coprostasis and the neuro-arthritic diathesis always underlie mucomembranous enterocolitis.

In examining the pharynx, the gums and mucous membranes of the mouth are taken note of and the findings are almost pathognomonic. Should the patient be seen during an acute exacerbation of the disease a moderate gin-givitis will be found with a more or less marked aphthous condition of the mucous membranes to which may be added, in occasional cases, an irritated, semi-ulcerated condition of the edges of the tongue, well towards its base, that may have existed for years. An attack of ptyalism exists with these findings and if you test with blue litmus the saliva will often be found acid in reaction. In fact you have an acid patient with an acetic acid odor, acid perspiration, acid saliva, over-acid stomach and acid stools, but with a persistently alkaline urine, having a sulphite of lime odor, and loaded with indican, phosphates, oxalates, and the aromatic sulphates. If this urine stands for an hour a pellicle of indican, reflecting all the colors of the rainbow, raises and floats on the surface, thus showing the intestinal putrefaction and toxemia of hepatism to be profound. The skin is anemic, cold and clammy, the hands and feet colder and clammier and the weight of the blood in the body is within the abdomen, the patient having been bled into her own abdominal vessels as is the case in resorcin poisoning. The mental malaize and passive cerebral congestion are suggestive of paresis. Sexual impotence is the rule in the male while the attack is on and while the urine remains alkaline. In both sexes the attack begins to clear up with the voidance of an abundance of clear, colorless, hysterical urine a low specific gravity, the quantity being suggestive of small red kidney.

The lungs on being examined are found to be small. While the patient may look to be semi-tuberculous the usual findings are bronchial catarrh and the cog-wheel respiration of hysteria. The patient may tell you of irregular attacks resembling rose-cold, but a much commoner history is that at times she is awakened from her first sleep by a difficulty in breathing, an icy coldness and a feeling of oppression in the chest as if the life was being squeezed out of her by a crushing weight on the lower sternum or upper abdomen. This feeling sometimes originates in a dream of someone sitting on the patient's breast-bone, and is due to an excessive volume of blood from the abdominal vessels to the right heart during dorsal decubitus producing passive dilatation, incomplete emptying and gradual failure of the overloaded right ventricle. Relief is obtained almost immediately by sitting up in bed, by deep breathing, by a movement of the bowels, or the passage of a half-chamberful of clear, colorless hysterical urine. Here the lungs and breathing apparatus were at fault because they did not keep the right ventricle aspirated. At times the attack resembles the Adams-Stokes' syndrome, especially the bradycardia and horizontal vertigo.

The heart, like the liver, the womb, the ovaries, is undersized and the right heart is below the standard either as a force or a suction pump. The result is the same as obtained in "the blues"—an excess of blood in the abdominal organs and brain, on the venous side. Add to this the obstruction offered by a cirrhotic liver and the patient in such cases complains of attacks of heart-fright occurring at various times, night or day, but coming oftenest during the first sleep and waking the patient from it with a feeling of impending dissolution. In these attacks, differing from those already described, there is nausea, the skin is leaky and inundated with cold sweat, the heart is very weak, the pulmonic second sound almost wanting and the pulse, often running as high as 160, so feeble that it is hard to count. The patient does not faint or lose consciousness but feels as if the hand of death were upon her. The heart-fright and right heart failure are real, being due, through abdominal stasis, to an insufficient volume of blood from the abdomen to keep the right heart pumping. The abdominal vessels, capable of holding the entire volume of blood in the body, are over-distended, this being especially true of the portal circulation, dammed off as it is from the systemic by a cirrhotic liver and gastro-enteroptosis. Though the method of relief is simple, death has occurred in these attacks. Timely relief may be obtained by suspending the patient by the heels, or by deep two-handed pressure over the semicircle of the lower abdomen, the patient being asked after the deep pressure is made and held, to throw the hands off by contracting the abdominal muscles. This method, by increasing abdominal tension, forces the blood from the abdominal vessels into the right heart and gives it something to pump on. Of drug treatment, I know of no heart tonic or stimulant of any value in the condition described. Any method, mechanical or otherwise, that minimizes the volume of blood dammed up in the portal circulation has a prophylactic value. If the colon is not in a state of corded spasm, keeping the bowels emptied, by a bottle of citrate of magnesia, once or twice a week, comes nearer warding off these attacks than any drug treatment that I know of. If, in addition to this, the gastro-enteroptosis be measurably corrected by persisting in using the abdominal passage already spoken of, and by strapping the abdomen, thus reinforcing the undeveloped abdominal muscles to which the gastro-enteroptosis is largely due, much is being done to keep up the abdominal tension which is so large a factor in minimizing the volume of blood in abdominal vessels. After ptosis of the abdominal organs has been corrected in the Trendelenburg position, straps of surgeons' adhesive plaster should be applied to the lower abdomen and colonic areas.

While the liver may be enlarged, the rule in mucomembranous enterocolitis is that there is a veritable cirrhosis, a contracted liver that does not give more than five centimetres of dulness longitudinally. As a result of this cirrhosis there is always and invariably a functional hepatic insufficiency lying at the core of the disease and standing in the way of rapid or permanent cure. This underlying vitiation of the functions of the liver is as deep as the foundation of the organism itself and is also supposed to contribute to the basis of the so-called uric acid diathesis, about which so much idle and "cock-sure" theorizing has been indulged in for years. Paraded under a score of names, it is here called "hepatism" and is the most resistant factor to the successful treatment of the syndrome described in this paper as tributary to and leading up to mucomembranous entercolitis. The real disease is still unnamed for mucomembranous discharges and coli tisare but symptomatic end-products that may not appear for years and yet the underlying disease be going through the slow evolution of its natural his-

tory. Call it hysteria, neurasthenia, goutiness, lithiasis, uricacidemia, or what you will, we still have the evidences of atrophic cirrhosis in the contracted liver, enlarged spleen, insufficient right ventricle, cirrhotic complexion, clay-colored stools, and especially so in the esophageal, duodenal and rectal hemorrhages due to nature's attempt to establish collateral circulation and furnish an outlet for the dammed-up portal system.

While there are several collateral channels which aid in overcoming portal insufficiency in the venous cirrhosis of mucomembranous enterocolitis, a reference to hemorrhages from but three will be sufficient for my purpose. The commonest form of hemorrhage is from the rectum and the condition found is usually called piles and operated on as such, but is not really hemorrhoidal. These hemorrhages are measurably beneficial and after getting over the scare of blood, the patient usually feels freer and better for them. The next in frequency are duodenal and intestinal hemorrhages and when the stools appear tarry and black the usual diagnosis is duodenal ulcer. For patient and physician, the most startling and serious hemorrhage comes from rupture of the overdistended veins of the esophagus in its lower third, anastomosing as they do with portal circulation. This hemorrhage by the mouth suggests tuberculosis or gastric ulcer, but it comes from neither and unlike the intestinal and hemorrhoidal, is usually too free to be helpful or desirable. The death rate for esophageal hemorrhages in venous cirrhosis is greater than from all other hemorrhagic sources combined, the greater number of fatalities occurring in first attack. On the other hand, these esophageal hemorrhages may be slight and occur off and on for years and finally a voluminous one close the scene. An attempt to give the time limit would be only a guess, but say ten to twenty years, or more.

A commoner and earlier evidence of atrophic cirrhosis of the liver in mucomembranous enterocolitis is the clay-colored stools, seen in this disease in the earlier stages long before the intensity of the colonic trouble has reached the stage at which intestinal lithiasis and membranous discharges are developed. Chronic constipation, coprostasis, if you will, is then the rule, long sections of the colon are in a state of corded spasm, and, if the spasm extend to the rectum as it usually does when an attack of hepatism is on, the stools are ribbon-shaped and clay-colored at the same time. It would seem that, for short periods, at least, the liver suspends secretion during those attacks and, as the disease is a long-lived one, clay-colored stools occur off and on for years. I have never seen a case in women in which the atrophic cirrhosis here described could be traced to alcohol, syphilis, or malaria, and believe that I have seen helpful results obtained from the moderate use of beer; helpful to constipation, heart, liver and kidneys.

Coming to the usually flabby abdomen through which you can palpate the spinal column, the first important things one runs his hands onto and cannot keep them off of, are floating tenth ribs, in themselves atigmata of degeneration. Whenever I find floating tenth ribs I expect to find a floating right kidney, gastroenteroptosis, fecal impaction or sacculation and corded spasm of the colon, hepatic and renal inadequacy, muscular inefficiency of the right heart and a patient who, if it has not occurred already, will soon or late develop mucomembranous discharges from the colon. In a word, I have a candidate for a fully developed mucomembranous enterocolitis.

Having coated the abdomen with vaseline, go over the colon carefully and you will find coprostasis or sacculation with intestinal atony in one section and corded spasm of the colon in others. I have seen cases where the bowels moved every day through a tunnel in the impaction, the patient being satisfied that her bowels were quite regular. These impactions give rise to sacculations in the colon and complete atony of the sacculated section of the gut. A common point of impaction is the cecum and when emptied, the sacculation hanging low in the pelvis, the tyro in abdominal diagnosis, looking for the heroic in surgery, operates for cystic right ovary. If the impacted or sacculated cecum becomes painful, or an internal hernia occurs into either of the retro-ilio-cecal recesses, the pain or tumor often centers about McBurney's point and then the common every-day diagnosis is appendicitis, for which an operation is usually advised. The differential diagnosis is difficult unless one knows the previous history, but hanging by the heels or the Trendelenburg position reduces the internal hernia and generally relieves the pain of pseudo-appendicitis.

There is one marked peculiarity about these fecal impactions and chronic appendiceal troubles in some cases, viz: If the patient works stooped over in a moderately jack-knifed position, usually to the right, shock, prostration, ptyalism, acid perspiration, hyperchlorhydria, appendiceal pain and tenderness, liver tenderness, and general malaise follow either immediately or within a few hours. I call this syndrome mesenteric shock due, I believe, to expression-traction on the mesentery and find it frequently ushered in by migraine and stercoraceous vomiting. While the cecum itself has no mesentery, the ascending colon has one in one-fourth of the cases and the root of the real mesentery (of small intestine) beginning at the left side of the second lumbar vertebra, extends well into the right iliac fossa. The condition called mesenteric shock yields to gastric lavege, suspension by the heels, and emptying the colon. Migraine is so common in these cases and the result from emptying the colon so good that I have grown to regard every case of sickheadache as being due to fecal impaction (or eye-strain) until proved otherwise. I have known case after case of sickheadache that had existed for years, cleared up at once by finding and removing fecal impactions. As long as the colon was kept free from impaction, whether that was for a month or a year, the sickheadache was absent, but just as soon as the coprostasis recurred the sickheadache returned.

Another common point of impaction in mucomembranous enterocolitis is in the transverse colon, this finding being met oftenest in seamstresses, tailors and shoemakers—classes that work in a jack-knifed position. Gastroptosis being the rule, in the disease in question, when the stomach drops out of position the transverse colon drops with it and, becoming U-shaped, fecal impaction occurs in the bend of the U. The extra weight of the impaction drags the transverse colon still lower and it is not uncommon to find the loaded U resting on the fundus of the bladder and causing an otherwise puzzling vesical irritability. Sickheadache is very common with this finding. Another common point of sacculation and impaction is just about the beginning of the sigmoid flexure, on a level with the crest of the left ilium. As a result of this impaction, the sigmoid drops or is pushed deeply into the pelvis and the knuckle of intestine, under such easy reach bimanually, is sometimes mistaken for a cystic left ovary. I believe I have seen one or more patients who have had a left ovary removed because of this finding.

Above or below the sacculation, or impaction, one finds the colon in a state of complete spasm, the gut feeling like a hard tube about the size of a large finger. If the transverse or descending colon have no sacculation or impaction they are usually in this state of corded spasm down to the beginning of the

sigmoid and then it is the sigmoid with its many turns and bends that is sacculated and impacted. Cathartics aggravate the spasm of a corded colon. Sigmoid impactions usually extend clear across the pelvis and the supposed growths are often figured as intraligamentary. In any case, the rectal sphincters are in a state of spasm and a condition of the rectal veins, resembling hemorrhoids, is very common. Attacks of painful rectal spasm occur by times at night suggesting the rectal crises of locomotor ataxia and are relieved at once by a rectal dilator, the index finger, a movement of the bowels or by getting out of bed and moving about.

While examining the abdominal organs one finds the same marked lack of muscular development in the abdominal walls so often met with in cases of sub-developed exophthalmic goitre. There is usually a separation of the recti while the flat muscles of the abdomen are very thin and in some cases almost wholly wanting. The natural result is a splanchnoptosis—a falling of all the organs in the abdominal cavity. It is in women with this type of abdominal wall, so common in exophthalmic goitre, that we meet labors with tedious, trying second stages, there being practically no abdominal muscles to supply the necessary two-thirds of the power demanded for expulsion of the fetus. It is the same type of woman, when thin as a knife, that gets joyously fat during pregnancy, digestion and assimilation being improved and abdominal tension kept up by the growing uterus pushing the abdominal organs into place and keeping them there for four or five months or more. Within a few months after labor, the support being gone and abdominal tension wanting, these women slip back again into the lank class. The splanchnoptosis, sickheadaches, fecal impactions, hyperchlorhydria, chronic appendicitis, hemorrhoids, hepatic and renal insufficiencies, uricacidemia, the blues, mucomembranous stools and intestinal lithiasis return and the patient becomes more discouraged and hysterical than ever. At this stage she becomes a "Christian scientist," because medical science and medical treatment have failed to make good in her case. I am always tolerant of medical and therapeutic fads, of "Christian scientists," osteopaths, and all such classes because the reason for their existence is based on the failure of the medical profession to furnish the public with the cures asked for. If our profession made good there would be no room for fads or fakes.

This paper up to the present would suggest a dozen different diagnoses and, to put it mildly, that number is small compared with the number made if the patient sees physicians enough; but the disease described here, whether membranes have or have not appeared in the stools, is the same disease that is finally called mucomembranous enterocolitis. It is a constitutional disease, belonging to the degenerations, and the mucomembranous discharges which finally give it a name are but end-products in the fully developed affection. The disease may exist for years before the grade of severity and nervous exhaustion is reached in which intestinal lithiasis, mucus diarrhea and membranous discharges appear. The stress and strain of life have much to do with hurrying the evolution of the symptoms and if this stress and strain be removed in the fully developed disease the membranous discharges disappear, the original diagnosis is forgotten, and the next physician tacks a new label on the case.

The disease is not hereditary but the patient is. She has to pack the type of nervous system and metabolic organs from which sprung the hysterias, neurasthenias, epilepsies, insanities, gouty arthritism, uric acidemias, and gastroenteroptosis of her forbears, and especially so the inadequate liver, renal insufficiency, and feeble musculature of the abdominal wall which are such marked factors in causing and continuing the depressing intestinal toxemias of mucomembranous enterocolitis.

Gentlemen, I had figured on giving a rather full clinical picture of mucomembranous enterocolitis, but have succeeded so far in giving only the leading findings that are usually overlooked, and, even then, not all of these. Having overrun the time limit, I will content myself by saying that the common everyday symptoms, the symptoms by which the disease is usually diagnosed are three, to wit: Coprostasis, intestinal colic, and mucus or mucomembranous stools. Chronic constipation may have existed from childhood; colic in the colon is located above the bladder or in what would be figured the small intestine and this colic is followed by mucomembranous stools. A common sequence is obstipation, colic and mucus diarrhea, the diarrhea and colic being most marked when the constipation is most obstinate. Constipation and diarrhea exist at one and the same time, the diarrhea being due to the coprostasis and to an excess of blood in the abdominal vessels through lack of abdominal tension.

In an acute attack, when the liver fails to secrete bile, the membranous discharges are white and clear as sago. I have seen a night-vase half-filled with these sago-white discharges in twelve hours. Once the liver assumes its functions the mucus and membranous discharges become a dirty yellow. The colic, more or less resistant to codein, may last for hours or days and is best relieved by hot poultices to the abdomen. Once nurse and physician have learned this lesson, the case is easier handled. The rest-cure is of value.

Osteomalacia: Addenda.

I desire to state that now, six weeks subsequent to making the report (page 155, May *Journal*), my patient presents the following symptoms:

Almost constant pain in left femur and back, necessitating the hypodermic administration of ⅜ gr. of morphia once or twice a day, having exhausted all other anodynes. Stomach still rebellious, rejecting fully one-half the nourishment taken.

Abnormal mobility in both femur now quite discernable. The illustration (page 155, May *Journal*) shows the lower third affected, now in both femur, upper third, permitting a considerable rotation of each femur, while the trochanters remain stationary or do not conform to the movements imparted by the shaft of the bone.

The left illiac crest, from the superior spinus process backward, is about double the thickness of that of the right side.

Continued loss of flesh; hope waning, but mind unimpaired. C. S. STODDARD, M. D.

Cooper College Commencement.

The commencement exercises of Cooper Medical College were held in the college auditorium on Tuesday evening, May 9th. Thirty-seven candidates received the degree. This graduating class entered the college with a membership of ninety-five, but each year the examinations reduced the membership, because the students found unfit were not permitted to obtain advanced standing. Those who were given the degree were, therefore, carefully selected from the number that began their medical studies.

The exercises were held upon what is known in the college as Founder's Day, the birthday of the late Dr. Lane, and attention was called in the addresses of the evening to this fact, and to the life and work of Dr. Lane. Professor Ellinwood made the address to the graduating class on behalf of the faculty. A second address was delivered by Edward R. Taylor, Esq., dean of the Hastings College of Law. He referred to the fact that he had delivered an address to the graduating class of the Medical College of the Pacific thirty-two years ago, and that the present faculty contained but three of the members of the faculty present at that time—Drs. Barkan, Gibbons and Ellinwood.

REPORTS PRESENTED AT THE 35th ANNUAL MEETING OF THE CALIFORNIA STATE MEDICAL SOCIETY.

REPORT OF THE EDITOR AND THE PUBLICATION COMMITTEE.

To the President and Members of the House of Delegates —GENTLEMEN: As your Publication Committee and the editor of your publications have worked in entire harmony during the past year, this report is filed as the combined report of the committee and of the editor.

THE JOURNAL.

During the year just past, the policy of the previous year has been continued. The Publication Committee has had frequent meetings, and no question of policy has been undertaken until after a full and free discussion, and upon unanimous approval. Owing to the fact that our most earnest efforts in the direction of securing an improvement in the character of medical advertising were frequently met with the statement that certain advertisements were published in the *Journal of the American Medical Association*, and so must be ethical, it seemed to be our duty to publish more or less of the facts concerning the relation of the Association's Journal to medical advertising, and show that the things which we wanted to do were only the things which the Association had declared, as far back as 1895, were right and should be done. So far from there being any criticism of the right of our various contentions, not only has there not been uttered a single word of adverse comment, but, on the contrary, letters have been received from all parts of the country, from delegates and officials of the A. M. A. itself, commending our criticism and urging us to continue.

At the last meeting of the American Medical Association, two plans were presented and recommended for adoption by the House of Delegates. One, from the Michigan State Association, recommended the formation of a council of physicians and pharmacists to act as a "clearing house" for unofficial preparations; the other, recommended by a special committee which had been working upon the matter for two years, was a more extensive plan. Both propositions were rejected, and the statement was made, unofficially, by several officers of the Association, that nothing would be undertaken *that might tend to reduce the net profits of the Association*. In view of these facts, it is a pleasure to report to you that the just criticisms which have been voiced in the pages of your JOURNAL have been very largely instrumental in the organization, by the Trustees of the A. M. A., of a "Council on Pharmacy and Chemistry," which is to act in exactly the manner asked by Michigan, less than a year ago, and report upon unofficial preparations. It is hoped that the operations of this council will, in time, decidedly ameliorate present conditions.

We have added 10 pages of advertising since the last report, in spite of the fact that we have rigidly adhered to the rule governing the acceptance of advertisements, and that we have refused to accept contracts for 6 pages of advertising of things not accompanied by a formula, but accepted by the *Journal A. M. A.*

The policy of aggressive business management, of bending every effort toward getting good advertising business in the early life of your JOURNAL, and thus building it up financially as quickly as possible, which policy was approved last year by this House of Delegates, has been continued, and we feel that the financial report presented at this time is one in which we may take pride. Growth and development have far outstripped our estimates of a year ago; the Society has done about $4,000.00 more business during the year than was estimated at the last meeting, and yet has shown no loss. And, too, this has been done at no loss of principle; if anything, the rules adopted by your Committee have been more rigidly followed during the past year than during the two previous years. We believe that we have demonstrated the possibility of a State Society publishing an absolutely clean journal in a businesslike way, and without losing money.

We consider the stimulation of county societies the most important function of your JOURNAL. Every effort has been made to encourage the members of component societies to prepare papers for their meetings, these papers to be published subsequently in the JOURNAL and thus presented to the whole membership of the State Society. The result is most encouraging, and should be continued, and even greater effort made in this direction. But to accommodate all the papers which may be thus secured, either the JOURNAL will have to be enlarged, or it will have to be published twice each month, instead of once. To increase the size, only increases the cost and not the revenue; if we publish twice a month, we can increase the revenue as well as the size.

During the year some effort was made to secure subscriptions to the JOURNAL from those who are not members, but owing to unforeseen complications it had to be abandoned. It was very early found that the agents in the field were asked to take the application of physicians for membership in the local society, and not merely secure their subscription to the JOURNAL. This was done, in one county, after correspondence with the local secretary, but the action of the secretary was later repudiated by that county society, on the ground that the society had not authorized its secretary to enter into such an arrangement. It would seem well, if possible, for the State Society, through your honorable body, to consider this matter, and formulate some plan by which the work may be done.

During the year the JOURNAL has increased 12 pages in size; it has printed 118 original articles, most of them read before the State Society or some one of its component societies; it has earned over $1,800.00 more than estimated a year ago, and has now in sight a minimum of $1,500.00 further increase for the coming year. The total business of the Society, including its publications, for the past year reaches a total of $12,579.00, whereas a year ago it was estimated at about $9,000.00. Less than $100.00 has been lost on unpaid advertising contracts; the exact amount cannot be given as yet, for some of these accounts are in process of adjustment.

We are obliged to carry from $500.00 to $800.00 in accounts that are perfectly good, yet which cannot be promptly collected. For this reason, and for the further reasons that the JOURNAL can safely be materially developed, and that the receipts and disbursements occur irregularly, we earnestly recommend that you authorize your Council to borrow a few thousand dollars as working capital. This money need not be expended directly, but should be used as a reservoir, as it were, to tide over the months of stringency and enable us to pay all bills promptly, from month to month, and thus secure better prices and discounts. It could also be used to further develop the JOURNAL and the Register by putting agents in the field to secure subscriptions in nearby states.

REGISTER.

The last edition of the Register included Oregon and Washington, and enough additional advertising was secured to pay for sending a complimentary copy to each member of the state associations of those two states. This year orders are being taken for copies in that territory, and returns are coming in with gratifying frequency, even though the work has been done entirely by mail.

As the Register is intended primarily for the use of members, accuracy is the principal essential. It is for that reason that we have spent a good deal of time and postage in endeavoring to complete the card file of physicians. It will never be possible to publish an absolutely accurate directory; but our effort has been to make it as nearly accurate as possible. The next edition will not cost as much as the last, for the reason that there will be fewer changes to be made.

Here again expansion is necessary. Quite a number of former advertisers in the Register have discontinued advertising in that publication, for the reason that they prefer to advertise in the JOURNAL. To make up for this loss we must secure other patronage, and to do that we must increase our circulation and our territory. Your editor is firmly of the opinion that several hundred orders for the Register may be secured, if the proper effort is made. But this requires solicitation, and agents must be paid cash commissions. Therefore it would seem still more advisable to approve the recommendation of the Council, and authorize the Councilors to borrow a sufficient amount to provide for these various expansions.

The apparent loss on the last edition of the Register is due to the fact that all expenses of compiling the card file as ordered by the House of Delegates last year have been charged to the Register account, for the reason that it would be extremely difficult to properly segregate the expense between the "Society expense" and the "Register expense" accounts.

The present condition of affairs and the matters proposed for future development have been submitted to a very successful and conservative business man. He reports that, in his judgment, the business of the Society is in very good condition, and the expansion suggested is rational and sound. Respectfully submitted,

PHILIP MILLS JONES, Editor.
For the Publication Committee.

REPORT OF THE COUNCIL.

The work of the Council has not been arduous during the current year, the Society having become fairly well organized and set in order through the work of the Board last year. We have in a measure been awaiting the trying of the plans as submitted and confirmed by your honorable body at our last meeting, at Santa Barbara.

The number of meetings held by the Council during the year have been less frequent, and the business occupying the attention of the Board at these meetings has been in a large degree that of routine matters only.

The membership of this Society has increased through new members to the component societies, two hundred and twenty-six. These societies, almost without exception, are prosperous, as will appear in the report of our secretary.

There yet exists a small area of unorganized territory in the state, most of which will be brought into the folds of this organization during the coming year. There are some sections where there are such irreconciliable differences between members of the profession that we have stood aloof for the time, looking forward when we might have the counsel and assistance of that great organizer and pacificator, the organizer of the A. M. A., Dr. McCormack of Kentucky. Our knowledge of the results of Dr. McCormack's work have led us to believe that even in turbulent Solano and Tulare useful and good-working component societies may be formed; but certainly there must be some missionary work preliminary to the organization.

Two publications of this Society, the JOURNAL and the Register, speak for themselves. The stand taken by our JOURNAL in the interests of legitimate and standard pharmaceutical preparations has made it unique in journalism in the United States. This work has been ably conducted by the editor, with the assistance of the publication committee, and has had a tendency to bring about great and lasting results. Undoubtedly there is a change taking place in the profession in its attitude toward secret and proprietary remedies, and it should be gratifying to the members that the JOURNAL in this state leads the reform rather than following in line with others. It may be unnecessary to call your attention to the encomium and praise that our able editor is receiving from time to time upon the conduct and management of our JOURNAL.

The Register of the current year was a great improvement over the last. I feel confident that the coming Register will be an improvement over the present one. The Register, like the JOURNAL, is before you, and they speak for themselves.

The financial situation of this Society, as shown by the report of the secretary, is not quite as satisfactory as we would wish, although when the whole situation is submitted it is far from discouraging, as will be seen by the report of the secretary.

We are spending money in securing advertisements for our publications in advance of the receipts for revenues from these advertisements. The advertising in the JOURNAL and Register being largely the source of revenues to which we look to pay the expenses of their publication.

There is only a slight credit balance or profit in the finances of the Society. In the development of these publications, at least so far as the JOURNAL is concerned, we are in the creative stage, and in the publications we are gradually building up a business and centralizing the affairs of the Medical Society of this state in one office.

These properties, the JOURNAL and the Register, are valuable assets, and in the near future will become sources of revenue. The expenses of publication have been in excess of the estimate of last year, but the revenues have been in excess. The management of the JOURNAL is hampered somewhat by the lack of funds. It has seemed to me, after discussing the matter with some of our members, that it would be a good policy for this Society to make a loan, say about $2,000.00, as a working capital. This amount could be paid for in from two to three years; and this plan seems to me better than that of raising the dues as a source of increasing our revenues.

There can be no trouble about securing the amount of money above mentioned, from a bank, or it occurs to me that the San Francisco County Medical Society has money on deposit drawing but 3½% interest. I presume they would be glad to place the above sum with this Society, say with an interest of 6%.

I wish to say, and I think I represent the sentiment of the members of my Board, to your honorable body that we are highly pleased with the satisfactory and efficient work of our editor, Dr. Philip Mills Jones. We feel that he is not being fully compensated for the very valuable service he is rendering this Society; but up to this time it has been all that the Society was able to pay.

In the matter of the financial transactions of this Society, they are becoming so extended that the work of the auditing committee is made quite onerous. It is their duty, and it should continue thus, that all expenditures of the Society be submitted to them; but we think it proper to suggest that at the end of each year before the meeting of this Society, that the books and accounts should be experted. I know this would be satisfactory to the editor and secretary, and it would relieve the auditing committee of a responsibility. Respectfully submitted,

C. G. KENYON, Chairman.

REPORT OF THE SECRETARY.

To the President and Delegates of the Medical Society of the State of California—GENTLEMEN: As required by the By-Laws of our Society, I beg to hand you herewith the report of the secretary for the past year.

The condition of the various component societies will be shown in the table appended to this report. Two new societies have been organized during the year—San Mateo and Tuolumne. Most county societies have shown a material growth, and the general condition of organization is very satisfactory. The year's work, particularly that portion of it which has been done in the last two months, has shown where some slight changes in our By-Laws will secure a greater degree of accuracy in reporting, and will relieve the State Society and the county societies of a certain amount of confusion which at present at-

taches to the filing of annual reports. For this purpose the secretary has introduced certain amendments to the By-Laws, which, if adopted, will materially simplify this phase of his work:

If the fiscal year of the Society is made from January 1st to December 31st, and if county societies are required to file the official list of members as of the 1st of January, a considerable amount of confusion will be averted.

The secretary would most respectfully recommend that all component societies be requested to elect their officers and delegates in either December or January, so that the returns showing the newly elected officers may be filed at the beginning of the year.

All but 10 members-at-large have, during the year, joined component societies, and of these, 6 have applied for membership in various component societies, and consequently only the following names are automatically dropped from the list of members of the State Society on this date: F. O. Chamberlain, Geo. W. Dwinnell, G. F. Hanson and E. H. Mattner.

During the year delinquent dues were received from a number of members. Those still on record as delinquent being the following: Dr. W. F. Osmun, San Francisco, $5; Dr. M. Strunsky, San Francisco, $5; Dr. Jos. Von Werthern, San Francisco, $3; Dr. J. Callandreau (France), $3; Dr. L. R. Webster, $3; Dr. A. S. Adler, San Francisco, $3; Dr. I. E. Cohn, Napa, $3; Dr. Campbell Ford, San Francisco, $5; Dr. S. B. Kobicke, San Francisco, $3; Dr. A. P. Woodward, San Francisco, $10.

The question of permanent members is still one that introduces complications. One permanent member (Dr. Cluness) was elected an honorary member of the Sacramento Society for Medical Improvement, and one (Dr. Harrison Neal) an honorary member of San Luis Obispo County Society. Neither of these societies, however, has remitted the assessment for its member of this class, and in the case of the Sacramento Society, his name does not appear upon the official list of members. It would seem desirable to take some definite action in this matter, so that the accounts may be kept straight.

The financial statement shows a very satisfactory condition, considering the large amount of work that has been done during the year. Effort has been made to segregate the various items of expense, and charge them to those accounts within which they may properly fall. There are certain items of expense, however, that cannot be distributed. For instance, all expenses attached to the card-file of physicians have been charged to the Register account, and it is largely owing to this fact that the Register account shows a deficit. We have endeavored, however, to counterbalance this charge in the future by securing orders for copies of the Register by mail, and I take pleasure in reporting that a considerable number have already been secured, and that they are coming in from Washington and Oregon with a satisfactory degree of regularity.

During the session of the legislature, the secretary mailed to each officer of the State Society and to the president and secretary of every component society, from time to time, a circular letter giving, briefly, information relative to measures pending before the legislature. No great effort was required from the component societies throughout the state to secure the non-passage of those bills which dealt more or less directly with medical legislation. The general feeling of the legislators seemed to be one of confidence in the reasonableness of existing legislation, and an absence of any desire to legislate against the expressed conservative opinion of the State Society.

The question of the relation of the State Society to so-called lodge or contract practice has been raised several times during the year by component societies, notably, Santa Barbara and Sonoma County Societies.

Santa Clara County Society has made formal request that your honorable body rule upon the eligibility of homeopathic or eclectic physicians who may be members of homeopathic or eclectic medical societies to become members of component societies of the Medical Society of the State of California.

The office equipment has been added to during the past year only in one particular. In January a mimeograph was purchased, its acquisition being made necessary by the plan to send out circular letters, as already indicated in this report. The office, however, is sadly in need of filing cases and several other small pieces of furniture.

Attached to this report are two documents—a statement of the membership of the Society, and a detailed report of the financial condition of the Society on April 1, 1905. The present system of accounting went into effect on May 1, 1904, so that the present report includes only 11 months of the year. The accounts for April of last year were audited and found correct by the auditing committee at the time that the present system commenced, May 1, 1904. If the amendments recommended are adopted by this House of Delegates, the next report can show the financial condition from January 1st to December 31st, 1905, and can summarize the business affairs of the Society from January 1st, 1906, to the time of the meeting, and subsequent reports will cover each fiscal year. Respectfully submitted, PHILIP MILLS JONES, Secretary.

MEMBERSHIP.

	Last Year.	This Year.	Gain.	Loss.
Alameda	113	125	12	..
Butte	15	18	3	..
Contra Costa	18	..	?	?
Fresno	47	54	7	..
Humboldt	29	39	10	..
Kern	16	15	..	1
Kings	9	10	1	..
Los Angeles	278	315	37	..
Marin	10	12	2	..
Mendocino	20	..	?	?
Merced	9	10	1	..
Monterey	20	23	3	..
Napa	22	20	..	2
Orange	21	21	..	..
Placer	15	20	5	..
Riverside	17	17	..	..
Sacramento	45	48	3	..
San Benito	10	9	..	1
San Bernardino	10	37	27	..
San Diego	23	36	13	..
San Francisco	464	521	57	..
San Joaquin	31	40	9	..
San Luis Obispo	14	14	..	..
San Mateo	..	6	6	..
Santa Barbara	20	22	2	..
Santa Clara	46	54	8	..
Santa Cruz	19	21	2	..
Shasta	16	21	5	..
Sonoma	46	54	8	..
Tuolumne	..	13	13	..
Ventura	15	9	..	6
Yolo	10	13	3	..
Yuba-Sutter	10	9	..	1
Totals	1,438	1,626	237	11

GENERAL SUMMARY OF ACCOUNTS.

Total receipts to March 31st.		$11,120.61
Total cash assets, less cash on hand	1,458.75	
Expenses, Totals—		
Journal		$6,005.08
Register		2,156.86
Miscellaneous		111.00
Office expenses		507.26
Salaries		3,033.47
Society		447.00

Organization		14.75
Fixtures		107.45
Credit profit and loss		196.49
Totals	$12,579.36	$12,579.36

(Signed) F. B. CARPENTER,
GEORGE H. EVANS.
Auditing Committee.

Register of Attendants of Last Meeting of the State Society.

C. Van Zwalenburg, Philip Mills Jones, J. Lambert Asay, W. S. Fowler, Oscar J. Kendall, Wm. C. Hassler, G. F. Reinhardt, Martin Regensburger, R. F. Rooney, Thomas Ross, Wm. Simpson, A. S. Parker, H. G. Thomas, Louise Harvey-Clarke, W. W. Roblee, Herbert C. Moffitt, C. M. Cooper, W. E. Bates, H. M. Robertson, J. G. Baird, Henry S. Orme, Wm. J. G. Dawson, F. K. Ainsworth, C. W. Girdlestone, Frank L. Adams, N. K. Foster, T. C. Edwards, Chas. C. Browning, Antrim Edgar Osborne, L. M. Powers, Edw. N. Ewer, Jay C. B. Rhodes, T. F. Brennan, LeMoyne Wills, Geo. B. Somers, W. T. Lucas, C. G. Kenyon, Wm. Fitch Cheney, F. C. E. Mattison, J. Underwood Hall, Edward von Adelung, W. Fred Stahl, H. Bert. Ellis, Wm. Freeman, P. J. Parker, J. D. Grissim, R. L. Wilbur, A. Fenyes, Wallace I. Terry, Harold P. Hill, J. M. Hurley, Curtis Falk, W. B. Sawyer, C. E. Ide, G. N. Drysdale, Sam'l Outwater, Geo. Ivancovich, Isaac A. McCarty, John R. Black, E. H. Wood, H. E. Southworth, E. M. Yates, Claire W. Murphy, P. C. H. Pahl, Geo. H. Kress, M. W. Fredrick, J. M. Shannon, Alexander Garceau, Julius Rosenstirn, Ernest Johansen, W. W. Beckett, Chas. D. Lockwood, M. Krotoszyner, Cullen F. Welty, Herbert Gunn, W. Francis B. Wakefield, Angus B. Cowan, Barton J. Powell, W. Lehmann, C. S. Stoddard, Andrew M. Henderson, J. J. Knowlton, Lincoln Cothran, Henry H. Sherk, Oliver D. Hamlin, A. D. S. McCoy, W. H. Roberts, Geo. E. Ebright, Donald J. Frick, Anne W. Nixon, D. W. Montgomery, J. L. Milton, Walter Lindley, James H. Parkinson, Wm. E. Briggs, Idris B. Gregory, C. Sheppard, Charlotte J. Baker, S. J. Hunkin, Charles Hutchinson, J. H. McBride, Geo. H. Evans, Harold Brunn, Dudley Tait, J. O. Cobb, W. S. Clark, Geo. B. Rowell, Ralph Williams, Thomas E. Ellis, Albert Soiland, Jno. R. Colburn, C. D. Ball, H. S. Gordan, C. S. Dickson, A. B. Grosse, H. A. L. Ryfkogel, Emmet Rixford, Harry M. Sherman, F. B. Carpenter, E. R. Smith, T. R. McNab, James M. French, W. V. Nichols, Jno. T. Rankin, Robt. L. Doig, E. M. Fly, A. W. Walker, Geo. L. Cole, Norman Bridge, H. R. Martin, Fred Baker, G. W. Tape, Walter S. Thorne, Thomas W. Huntington, I. K. McLennan, Robert A. Peers, Geo. Wall, Jno. C. King, H. M. Pond, E. R. Sill, Stanley Stillman, L. F. Alvarez, Langley Porter, E. S. O'Brien, R. E. Bering, J. F. Burns, John Ely Janes, Rose T. Bullard, F. M. Burner, J. H. Seymour, Levi D. Johnson, Stanley P. Black, Frank W. Miller, C. W. Pierce, F. M. Pottenger, R. W. Miller, H. G. Brainerd, E. C. Armstrong, H. Z. Gill, J. H. Evans, A. H. Shelton, W. A. Martin, C. L. Abbott, Raymond Russ, O. O. Witherbee, F. C. Davis, A. R. Chapin, W. Harriman Jones, A. F. Speicher, Theodore G. Davis, W. A. Cundy, Louise M. Richter, Mary L. Noble, E. Hurley, W. W. Richardson, F. W. Thomas, C. G. Toland, Elbert Wing, J. T. Fisher, J. W. Love, Merritt Hitt, A. T. Newcomb, L. L. Whitman, J. D. Davidson, A. Matthay, D. N. Bacon, Carl Kurtz, Chas. B. Nichols, F. R. Burnham, Grant G. Speer, Frank Zelinsky, C. F. Miller, A. W. Morton, T. J. Wilson, J. K. Swindt, Wm. B. Bullard, J. M. Armstrong, E. W. Fleming, Hill Hastings, Geo. J. Lund, W. W. Hitchcock, Andrew Stewart Lobingier, J. H. Davisson, Geo. W. Lasher, Z. T. Malaby, W. T. Bolton, J. E. Payton, John A. Shreck, D. C. Strong, John Adams Colliver, Gayle G. Moseley, M. L. Moore, F. D. Bullard, Thomas J. McCoy, A. C. Rogers, Wm. A. Edwards, C. F. Taggart, James P. Booth, N. W. Hamilton, D. W. White, R. Struble Gibbs, Arthur H. Mays, A. H. Giannini, Hoell Tyler, J. I. Clark, Wm. H. Craig, Arthur L. Kelsey, F. E. Corey.

Delegates in Attendance.

The following delegates and officers were represented in the House of Delegates at the sessions of the last annual meeting:

The president, Frank L. Adams.

Alameda county—H. G. Thomas, O. D. Hamlin, J. L. Milton.

Fresno county—J. D. Davidson, A. B. Cowan.

Humboldt county—Curtis O. Falk, Geo. N. Drysdale.

Los Angeles county—S. P. Black, C. G. Toland, J. H. Seymour, H. G. Brainard, G. L. Cole, W. W. Beckett, Geo. W. Lasher, A. S. Lobingier, W. W. Hitchcock, Norman Bridge, C. B. Nichols, Carl Kurtz, F. M. Pottenger.

Marin county—Arthur H. Mays.

Merced county—E. S. O'Brien.

Monterey county—T. C. Edwards.

Orange county—Chas. D. Ball.

Placer county—Robert A. Peers.

Riverside county—C. Van Zwalenburg.

Sacramento county—J. H. Parkinson, Wm. Ellery Briggs.

San Bernardino county—C. C. Browning.

San Diego county—Fred Baker.

San Francisco county—A. B. Grosse, S. J. Hunkin, G. B. Somers, W. F. Cheney, H. A. L. Ryfkogel, Emmet Rixford, H. M. Sherman, W. F. B. Wakefield, C. M. Cooper, J. Rosenstirn, W. I. Terry, M. W. Fredrick, H. Gunn, M. Krotoszyner, H. C. Moffitt, T. W. Huntington, G. E. Ebright.

San Joaquin county—H. E. Southworth, Barton J. Powell.

San Luis Obispo county—J. J. Knowlton.

Santa Clara county—A. E. Osborne, J. F. Burns.

Sonoma county—Geo. Ivancovich, E. M. Yates.

Yolo county—W. E. Bates.

The Council—E. N. Ewer, J. Lambert Asay, F. B Carpenter, T. C. Edwards, A. S. Parker, George H. Evans, C. G. Kenyon, H. Bert. Ellis, Thomas Ross, F. C. E. Mattison.

The Secretary, Philip Mills Jones.

Some Personal Impressions.

There was an excellent opportunity to study some strong medical personalities at Riverside.

President Adams, frank, open-faced and genial, even when corrected on points of law by his right bower, the state secretary; Dr. Philip Mills Jones, a paradox of alertness in a somewhat attenuated and languid physical frame, who, like President Adams, was genial even in his positive interpretations of the Constitution and By-Laws of the Society; Dr. Dudley Tait, polished expounder of the state medical laws, a popular-unpopular member, whose comings and goings were of interest to all; Dr. Rooney, president-elect for 1906, pleasant in manner and feature, and raconteur of an inexhaustible fund of stories; Dr. Norman Bridge, like Dr. Tait, positive and outspoken in his conceptions of things; Dr. H. Bert. Ellis, leisurely alert and smilingly aggressive; Dr. Walter Lindley, moving here and there, but leaving, no doubt, the impress of his presence—let him not deny the soft impeachment; the venerable Dr. Orme, a faithful member and officer of the State Society through many past years; and so on through a whole host of workers in our noble guild, to mention all of whom with proper words would require much more space than is at our disposal.—*California Medical and Surgical Reporter.*

Dr. Maupin, Second Vice-President.

In the minutes of the House of Delegates, as published last month, occurs a slight error. Dr. A. B. Cowan nominated Dr. W. T. Maupin for second vice-president, but in transcribing the minutes for publication it was made to appear that Dr. Cowan was *elected* second vice-president.

Dr. Kenneth A. J. Mackenzie of Portland, Or., was married to Mrs. Marion H. Brown, at Spokane, Wash., on April 26, 1905.

COUNTY SOCIETIES.

Orange County.

The Orange County Medical Association held its annual meeting in the parlors of the Rossmore Hotel, Santa Ana, Tuesday, May 2d.

The officers-elect were duly installed in their respective offices, after which Dr. F. E. Wilson, the retiring president, delivered an address on the "History of Medicine," which was highly interesting and instructive. The members and their ladies were then invited to the banquet room by the committee of arrangements, where a tempting repast awaited them. This, with the toasts and after-dinner speeches, concluded the evening in a manner calculated to draw closer the cords of friendship and fellowship about every one present. H. S. GORDON, Secretary.

San Joaquin County.

The meeting for March was postponed, and met April 6th at the office of Dr. S. W. R. Langdon, President Knight in the chair. The following members were present: Drs. J. D. Young, H. E. Sanderson, R. B. Knight, W. M. S. Beedy, H. W. Taggart, S. W. R. Langdon and Barton J. Powell, Dr. Langdon, Sr., and Dr. Syrin as guests.

Dr. Langdon read a paper on "The German Medical Exhibit at the World's Fair." The doctor reported the exhibit as being very thorough and instructive. Especially did the exhibit offer advantages for studying skin and eruptive diseases. He considered the exhibit superior to that of any other nation represented at the fair.

After free discussion the society adjourned.

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The regular meeting for April was held at the residence of Dr. D. F. Ray, President Knight in the chair. The following members were present: Drs. A. W. Hoisholt, J. D. Young, R. B. Knight, H. E. Sanderson, S. W. R. Langdon, A. E. Arthur and Barton J. Powell.

A doctor presented a case of floating kidney in a young man. The case was an especially easy one for diagnosis.

The delegates from the State Society made a report, noting the things of interest that took place at the recent meeting in Riverside.

BARTON J. POWELL, Secretary.

Humboldt County.

The Humboldt County Medical Society met in the Needs Building, Eureka, Tuesday evening, April 11th, President Sinclair in the chair. There was a good attendance, and an enthusiastic meeting resulted.

A paper by Dr. J. A. Lane of Fortuna, on "The Early Diagnosis of Gastricarcinoma" was read by the secretary, and was discussed by Drs. C. C. Falk, Gaynor, Mallery, Sinclair and Menefee. Dr. C. O. Falk presented a case of diphtheria, and excited considerable discussion relating to that disease and the recent slight epidemic in this locality. Dr. P. M. Menefee reported the condition of the patient whose case was reported at the last meeting.

The matter of "quack" advertising in the professional columns of the local dailies was brought up, and the secretary was requested to communicate with the members as to advertising, and see if we could not get a sufficient number of professional cards to keep the "quacks" out. The matter of the affiliation of graduates of other than "regular" schools was also touched on, and the delegates to the State Society were requested to ascertain the general feeling in the matter before the society proceeded further.

The committee appointed some time ago to interview the supervisors in relation to a contagious ward for the County Hospital, were again requested to bring the matter to the attention of the Board, as it was the sense of the society that it was a much-needed improvement.

The secretary was instructed to notify members who were due for papers two months in advance, and again one month before the meeting, requesting the titles of all papers at least two weeks before the meeting. This is done in order to give the society opportunity to properly arrange for discussion.

The society adjourned until May 9, 1905.

J. H. MALLERY, Secretary.

San Francisco County.

Meeting on May 9th was called to order at 8:35 P. M.

Minutes of the last meeting read and approved.

Proposals for membership: Drs. O. E. Eklund, Elizabeth B. Liebe, Randall C. Stoney, W. H. Scholtz, René Bine, Wm. Waltire, Geo. Herzog, Herman Schlageter.

The Committee on Admissions reported the following elected to membership: Drs. M. L. Baum, Jos. L. Howard, H. I. Jones, Annie Lyle, E. H. Mattner, Josephine Pitcher, Alonzo E. Taylor.

The following papers were read: Exhibition of specimen of stricture of gall-bladder, Dr. L. Allen; demonstration of X-ray plate, case of diaphragmatic pleurisy, demonstration of specimens from two cases of brain tumor, without choked disk, Dr. E. Schmoll; "The Relation of Obstetrics to Neurology," Dr. Leo Newmark; "Intermittent Claudication," Dr. A. W. Hewlett.

New business: President appointed the following committee to arrange for smoker for the American Surgical Society: Drs. McMonagle, Brown and Terry. The committee appointed on the milk commission were Drs. Evans, Cheney, Lewitt, Alfred B. Spalding.

Dr. Jones stated, at the request of Dr. C. G. Kenyon, chairman of the Council of the State Society, that the Society had authorized the Council to borrow $2,000 at 6%, for three years. The Council would first offer to make this loan from the County Society, in order to give the society the benefit of the increased interest. Applications had already been received from individuals to take up this loan, but the Council would rather place it with the County Society, if the society so desired.

Dr. Evans made a motion that the matter be referred to the Executive Committee, that this Society be authorized to loan to the State Society $2,000 for three years at 6% interest. Executive Committee to have power to act. Moved, seconded. So ordered.

Dr. Carpenter gave notice that all demonstrations or papers or statements of any kind which are to be brought in in reference to any paper read, must be referred to the Executive Committee in plenty of time for the statement to be printed on the program.

Resignation of Dr. Gustavus I. Hogue read; accepted.

Motion made and seconded that the Library Committee be authorized to make any communication with Mr. Carnegie with reference to asking for money for a library that they see fit.

Meeting adjourned at 11 P. M.

H. E. ALDERSON, Secretary.

Riverside County.

The April meeting of the Riverside County Medical Society was held on Monday evening, April 10th, at the residence of Dr. O. J. Kendall. Mrs. Kendall, the hostess, served an elegant repast early in the evening to the thirteen physicians present. This change was very much appreciated, as some of the physicians on previous occasions, after a late spread, had been obliged to nurse themselves for the remainder of the night.

The meeting came to order at 9 P. M., and transacted its routine business.

The final arrangements for the entertainment of the State Medical Society were brought up and thoroughly discussed.

Dr. Geo. E. Abbott of Pasadena, the guest of the evening, gave a very instructive talk on "Here and There in Medicine and Surgery." He very graphically illustrated his subject, and was listened to with close attention by the members.

Dr. Baird gave an exhaustive report of an unusual case of lung solidification.

Dr. Girdlestone exhibited an interesting postmortem specimen, and gave a condensed history of the case.

The society voted its thanks to Dr. Abbott for his kindness in coming to Riverside and presenting to them such an interesting array of useful points. The society also voted its thanks to the hostess for her gracious hospitality.

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The Riverside County Medical Society, to the number of twelve, assembled at the home of Dr. C. W. Girdlestone on the evening of May 8, 1905, for their regular monthly meeting.

The committee appointed at the last meeting to consider the advisability of the physicians uniting in an agreement to use the home phones exclusively reported that two meetings had been held, at which physicians of the other schools were present, and that an agreement had been signed by fifteen physicians to notify the Sunset Company to remove their phones on a certain date.

Other business matters having received proper attention, we were at liberty to hear the paper of the evening, "Conduct of Labor," by Dr. Louise H. Clarke. It was timely and interesting and received close attention. The discussion brought out a full expression from the members of their individual practice in the conduct of such cases.

We were then invited to the dining-room to partake of the many good things which Mrs. Girdlestone had so kindly provided for our enjoyment. Just before adjournment at midnight the society voted their thanks to the hostess for her bounteous provision for our entertainment. SAM'L OUTWATER, Secretary.

Sonoma County.

At the April meeting of the Sonoma County Medical Society several papers were read. "A Plea for the Child-Bearing Woman," by Dr. A. McG. Stuart, was an excellent paper, and Dr. Stuart received many compliments. The doctor's experience was given us, to our edification.

Dr. R. A. Forrest had some splendid drawings and several charts of the foot; also two short papers, "Irritable or Tender Heel" and "Fracture of External Malleolus."

Dr. R. G. Reynolds of Upper Lake and Dr. A. R. Graham of Petaluma were added to our list of members. Now about six-sevenths of the active doctors of the county belong to our society, and many of the nonmembers are in harmony with us.

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The society met in Dr. J. J. Keating's office, Sebastopol, May 11th, with President Ivancovich in the chair. This meeting was one of the best attended since organization.

Dr. Stuart Z. Peoples of Petaluma was elected member on transfer card from San Joaquin County Medical Society.

The following amendment was adopted:

AMENDMENT NO. III.

Resolved, That we, the members of the Sonoma County Medical Society pledge ourselves not to meet in consultation any doctor who violates Section I of amendments to our by-laws, relating to contract work, or any physician who does professionally affiliate with such doctors; and that the Secretary be instructed to send the names of doctors doing contract work, with a copy of this resolution, to every member of this Society.

The Secretary was instructed to furnish our STATE JOURNAL with a copy of this amendment; also to inform each county Society in the State of our action and ask assistance, especially of the members in San Francisco, where lodge doctors may call for consultants. This amendment is beneficial to patients as well as to the profession as a whole, for a man who is working for one-third of what he knows, he should get has not the heart to do or work as hard as he would if he were paid a fair price for his labor—not to speak of the injury he does his vocation.

Of course if a lodge doctor is honest, he will do the work he has in hand to the best of his ability. But, Lodge Doctor, you are doing injury to yourself and your profession by lowering wages. Don't do it. Charge a fair price for what you do, and when you do not work, accept no fee.

The following resolution, introduced by Dr. S. S. Bogle, is to come up for discussion at the June meeting, and to be known as Amendment No. IV:

Resolved, That the fee for examination for old line insurance companies be $5.00 (this $5.00 to be paid by the company), and for benevolent orders $2.00.

Dr. W. W. Jesse read a paper on "Female Perineum." After describing the perineal body, the doctor told us how he repaired injury to it, usually produced by childbirth. Dr. Jesse said: "It must be admitted that a large portion of female diseases take their origin in the lying-in chamber. To the obstetrician the importance of the perineum cannot be overestimated; its rupture furnishes one of the most fruitful sources for the absorption of septic matter, and I believe it is safe to say that thousands of women suffer throughout their lives from injury inflicted during labor. I think it better to repair even slight lacerations than to trust to nature. Every physician who attends a case of labor should be supplied with suture material—needles, needle holder and antiseptics. The suture material which I use is silkworm gut, or ten day catgut. For repairing lacerations, bring patient across bed. Have attendant hold legs. Clean lacerated portions with antiseptic solution; place gauze to keep back the flow—and remember that a blood clot will prevent healing." He then told us how he introduced stitches—that he removed same about the ninth or tenth day. He then took up the various operations done on the perineal body. This was one of the best papers.

Dr. E. Gray gave us a talk on the case of a nine-year-old epileptic dumb mute, but not deaf. Tuberculosis of the bowels; complete transposition of viscera. Temperature 93° F. No cough.

Postmortem.—No tubercles in lung; pachymeningitis; heart on right side; liver on left; appendix on left side; ascending colon on left side; descending colon on right side; three lobes to left lung; fundus to right; pylorus to left. Family history: Parents, second cousins; had 10 other bright children, yet this one was simple.

Our next meeting will be held at Healdsburg, June 8th. Paper, "Medical Jurisprudence," by Dr. Wm. J. G. Dawson. Discussion by Dr. J. M. Crump.

G. W. MALLORY, Secretary.

San Bernardino County.

San Bernardino County Medical Society met in Y. M. C. A. Hall, Redlands, Cal., pursuant to adjournment at 2 o'clock P. M.

Dr. Browning, the president, was in the chair, and Dr. J. M. Hurley, secretary, at the desk.

Reading of minutes of last two meetings, and adoption of same.

The Board of Censors reported favorably on Dr. E. A. McDonald and Dr. J. A. Jordan as members of this Society. The report was adopted. Dr. Hurley, the secretary, presented the case of Dr. E. E. Duncanson, and read the communication from Dr. Jones, the secretary of the Medical Society of the State of California, on Dr. Duncanson's case. Upon motion of Dr. Blythe the president appointed the following committee to report upon Dr. Duncanson's case, viz.: T. M. Blythe, R. S. Gibbs and J. M. Hurley. This committee reported as follows:

To the Officers and Members of the San Bernardino County Medical Society of California:

Whereas, The State Medical Society of California requires membership in local County Medical Society as a qualification for membership in the State Medical Society, and the State Medical Society being formed by the different county societies throughout the state, and the dues to the State Society are charged to each

local society according to membership reported by such society; therefore be it

Resolved, That it is the sense of this society that membership in this society depend upon the full payment of dues of this society, viz.: $1.00 as county expense fund and $2.00 as state fund, or $3.00 being paid by each member; and that any member refusing or neglecting to pay this amount each year, such delinquent member being notified by the secretary of such delinquency, and still failing to make such delinquency good, shall be dropped from the roster of membership of this society.

(Signed) T. M. BLYTHE,
R. STRUBEL GIBBS,
J. M. HURLEY,
Committee.

Dr. Strong then read a paper upon "Appendicitis," and presented the anatomical specimens of his operations and gave his treatment of patients operated upon; also gave his treatment in non-surgical cases. He favored early operations in these cases.

The paper was discussed by Dr. Payton. Dr. Payton gave his experience in five cases. Three patients were operated upon, all of whom made good recoveries. He reported a subsequent case of a patient that was sent to Los Angeles and was operated on there, and also made a good recovery. He, too, also favored early operation, as in such cases the patient is in better shape to recover from an operation than when such operation is deferred until suppuration takes place.

Dr. Blythe gave it as his experience that subjects of early operations usually make better recoveries than later ones; but his experience led him to believe that the essential thing to overcome is the opinion of the patient and lay friends of the patient.

Dr. Shreck spoke of the paper of Dr. Strong as being a good one, and hoped to see the day when the opposition of the laity to surgical treatment of abdominal complaints will be less active than now; when such is the case we may expect better results in all such cases.

Dr. Scott thought well of the paper, but said he had not had the experience in operations of this sort. He related the experience of one doctor who had operated in 100 cases with a mortality of only 3%; also referred to other cases.

Dr. Gibbs spoke on appendicitis, and referred to a case that he had witnessed, one that had been diagnosed appendicitis, and one the operating surgeon urged upon patient as demanding immediate action. When the surgeon opened the abdomen and took a hunt for the appendix, he found only a cicatrix where it ought to be. The patient had once before been operated upon, but on further investigation the surgeon found a floating kidney, which he removed. The patient made a good recovery.

Dr. Meyers spoke upon appendicitis diagnosis and the mistakes that are liable to occur, and gave general treatment for this complaint.

Dr. Tyler regretted that he had heard but little of the paper. He spoke of the advances made in this disease, and referred to an article in a London medical journal upon the functions of the cecum as a digestive organ. He gave it as his opinion that the appendix ought to come out in case of disease of that organ.

Dr. Majors spoke favorably of Dr. Strong's paper. He also favored removal of the appendix.

Dr. Browning gave his views upon this disease, and referred to Dr. Von Zwalenberg's ideas upon these cases.

Dr. Meyers referred to Dr. John D. Deaver's expression: "Gentlemen, do not allow them to talk you out of it."

Dr. Shreck cited a case that had been diagnosed appendicitis, and that the examining surgeon had recommended immediate operation, which was consented to by the patient and friends. When the belly was opened the appendix was absent, having been cut off in former operations, and he referred to the matter of mistakes in such cases.

Adjournment, to meet in the old Court House, San Bernardino, on May 10th (second Wednesday), 1905.

J. M. HURLEY, Secretary.

WILLIAM HAMMOND.

William Hammond. M. D., died at his residence in San Francisco the 29th of April, 1905, in his eightieth year, of diseases incidental to old age. It is twenty years since Doctor Hammond retired from active practice, and in that time many of his contemporaries have passed away; but there are not a few left who still remember him, and there are many families in San Francisco now under the care of others who had been for many years in care of Doctor Hammond. Doctor Hammond was born in Hagerstown, Md., in November, 1824. He was the son of Doctor William and Mary Tilghman Hammond. In 1843. when his father was stationed at Jefferson Barracks, St. Louis, he began the study of medicine in that city by taking courses in chemistry and anatomy at the University of St. Louis. He became an adept in the dissecting room, and in 1844 he took the place of the demonstrator of anatomy, who fell ill of typhoid. In the fall of 1844 he went to Baltimore and attended lectures under Nathan R. Smith and Dr. Chew, and graduated in that city in 1845. In 1847 he went to Galena, Ill., but not finding congenial occupation, he returned to St. Louis, and was at once invited to go to New York before the army board for the purpose of receiving a commission as contract surgeon in the army. Under this commission he went to Mexico, and served in the general hospital in the City of Mexico, and in Hualapa until the army evacuated Mexico in 1848. He then went to Old Point Comfort at the time of the outbreak of yellow fever. In 1849 he married Eliza Mitchell of Hagerstown, and they went to Fort Leavenworth, where Dr. Hammond served, and afterward to Fort Kearney. In 1853 he was ordered to Oregon, but on reaching California he sent in his resignation from the army, and remained in San Francisco. From 1853 until 1885 he was in active practice in this city. At first he was in partnership with Doctor Charles Hitchcock, but for the greater part of that time he was associated with no one. Doctor Hammond was especially noted for being one of the earlier men to recognize the fact that the medical profession had no specific for typhoid fever, and that the rational treatment of the disease lay in the careful management of the patient, and in the nursing. He also made original investigations on mountain fever, and offered explanations for its absence from the valleys. He was very successful in his typhoid experience, and was always proud of that fact. He enjoyed a very large practice in San Francisco, his personality gaining him the intimate friendship as well as the patronage of many people. These he ruled with a very firm hand, but with all gentleness and patience and consideration. It is believed that Doctor Hammond was the surgeon who attended Broderick in the duel in which he was killed.

His wife died in 1885, the year Doctor Hammond retired from practice. In 1886 he went to live at Livermore, and later married Mrs. Elizabeth Noyes. She and his daughter, Mrs. George Page, survive him.

American Medical Association Journal.

The California State Medical Journal—being an official organ of a State Society that has adopted the reorganization—speaks with remarkable temerity as to the business management of the *Journal of the American Medical Association*. Among other things, it points out that the Association members pay into its treasury something like $40,000 a year more than it needs—enough to enable the trustees to provide for not only the best journal in the country, but also one

which does not, in every issue, make a laughing stock of the "principles of ethics." Nearly every issue tends to debauch the mind of some members; it recommends to them to make use of or prescribe secret remedies. It uses about $15,000 of the dues paid in by members to help in its work of "promoting the use of secret remedies." The trustees of the A. M. A. are responsible. "Their contention, that it is not possible to determine which ads. are ethical and which are not, is simply absurd, puerile and idiotic. Let them answer these simple questions: Is it a medicine? Is the composition of this stuff known to the doctor who is asked to prescribe or use it? Are the advertising statements made within the truth? Is it advertised to the laity?"

[The *Charlotte Medical Journal* reprints the above from the *Virginia Medical Semi-Monthly*, and comments on it as follows:]

The above is taken from the *Virginia Medical Semi-Monthly*, and expresses in part our opiuion. The whole cause of the bad ethics so often seeu scattered through the reading matter and advertising pages of the *Journal* is due to Dr. Simmons, and not to the trustees of the Association. He is a cunning politician and a typical comuercial gentleman. As long as he has control of the Association journal it will succeed financially, but will never take a deceut stand ethically.

[The *Virginia Medical Semi-Monthly* has observed the editorial opinion of the *Charlotte Medical Journal*, and in a subsequent issue makes the following comment thereon:]

The *Charlotte Medical Journal* may now look out for exclusion from further meution under the head of "Current Medical Literature" in the *Journal A. M. A.* Such would seem to be a way of "setting down on" journals that refuse to bend the knee in servitude to that mighty power in the land.

PUBLICATIONS.

Surgical Treatment of Bright's Disease.—By GEORGE M. EDEBOHL, M. D. Published by Frank F. Lisiecki, New York, 1904.

The skepticism aroused by the author's former publications, all of which are reproduced iu the present volume, and the widely divergeut views held by numerous accepted authorities in this country and abroad explaiu the eagerness with which Edebohl's book was awaited by both the physician and the surgeon. The physician who, not without apparent reason, protested against the invasion of his domain, expected more accurate clinical data, more careful and complete case histories; the surgeon, mindful of Harrison's aud Pousson's pioneer efforts, and versed in the modern therapy of pyogenic renal affections, expected the results of definite tests upon which positive diagnosis could be based; the pathologist who rightly relegated the term Bright's disease to musty text-books demanded biopsic, chemic aud microscopic evidence. All have been disappointed. The perusal of Edebohl's book leaves an impression of incompleteness, difficult to explain and still more difficult to excuse in the light of present-day knowledge.

In the majority of case-histories, the diagnosis of reual degeneration is based on the most flimsy evidence. The well-known form of trausitory renal congestion is called chronic nephritis; forthwith bilateral decapsulation is performed, aud the patient's recovery is heralded as a cure.

The clinical evidence and the urinary findings in several of Edebohl's successful cases vividly recall the class of *curable albuminurias*—the cyclic, the physiologic and the mild albuminuria induced by fatigue, corporal or cerebral—(Sterling, Tessier, Leube). The great frequency of fuuctional, intermittent albuminuria is entirely overlooked by Edebohl in computing the results of decapsulation. The unreliability of diagnoses based on urinary findings (Tessier, Cabot) seems to have been forgotten.

As an example of the author's process of reasoning, his remarks on Case II, page 54 (acute right pyelonephritis with miliary abscesses; decapsulation of right kidney), may be quoted:

"I feel satisfied that my patient would have done just as well without operation, although in that event the diagnosis would have been open to doubt." "Pus, although in gradually diminishing amount, is still present in the urine. She is taking hexamethylene tetramin constantly since the operation."

In Case III, page 56 (acute hemorrhagic nephritis; decapsulation of both the kidneys at one sitting), Edebohl says: "Possibly both kidneys would have recovered full health without surgical iuterference. To the writer's mind the case represented an instance of bilateral acute nephritis of the most acute type cured by renal decapsulation."

Among the case histories one may recognize that of a brilliant surgeon of the northwest who made one of the most enthusiastic defenses of decapsulation in chronic nephritis, relating clinically and in great detail his personal observation, and triumphantly announcing his cure. Not many months later the surgeon in question died of uremic coma. The latter *detail* has been omitted from Edebohl's published record. Page after page of clinical history demonstrates a remarkable lack of modern knowledge concerning the reaction of the kidney to functional and toxic disturbances. It may interest those who advocate decapsulation in uremic coma to learn that, according to Edebohl, no immediate effect should be expected from decapsulation; improvement seldom occurs before 8 or 10 days.

On the other hand, the author is to be commended for the accurate and thorough review of the experimental work relating to the effects of decapsulation, mentioning the results obtained by the French school, all of which were confirmed one year later by Johnson of San Francisco and numerous Italian experimenters. One leaves the book with the firm conviction that instead of assisting the cause of surgery in renal therapy, Edebohl's latest publicatiou will cause many minds, both medical and surgical, to view its future with suspicion. D. T.

The International Medical Annual for 1905.—Thirty-five (35) contributors. Edited by E. B. TREAT & Co., 241 West Twenty-third street, New York. Price $3.00.

To compile a resumé of the advances made in medical treatment during 1904, and to place the same before the profession in a concise, practical form, is no small undertaking.

Often conciseness may mean superficiality, and in medical literature this is shown in the increased demand for compends and books of similar character which only touch the "high places" of the subjects described. Owing to the enormous extent of literature which it is necessary to cover iu a book like the "Medical Annual," conciseness is especially required, yet it precludes a certaiu amount of medical knowledge to be in the possession of the reader, which it aims to supplement; for instance, in the description of a drug its popular indications are not mentioned or suggested, while an unexpected use may be explained. As a practical, work-a-day book it certainly is a success, and while it has a distinct foreign flavor, as one might expect when we note that only four (4) of the thirty-five (35) contributors are Americans, in the sense applied to the word "American" by our Secretary of State, yet every subject is handled in such a way as to stimulate further investigation, and full credit is given to those who are endeavoring by original research to increase our knowledge of special subjects. In reviewing a book of this kind it is impossible to take a specific subject and to state what should or should not have been mentioned. The contribntors are no doubt in possession of what has been mentioned in previous editions of the "Annual" on their subjects, and are in consequence better able to select their material than we who have at most only

two (2) or three (3) numbers on our shelves. I can only suggest, from the standpoint of a general practitioner, that certain common disorders have not been given the space they warrant. "Headaches," for instance, is given four (4) lines under the heading of "Pyramidon," page 49, while "Ocular Headaches" are discussed at length on pages 608 and 609. Taking the book as a whole, one is justified in saying that it is well worth the money and the time spent in its perusal. G. H. R.

Gynecology.—By HENRY J. GARRIGUES, A. M., M. D., New York. Published by J. B. Lippincott Company, Philadelphia. Price, cloth bound, $3.00.

The first quarter of the book deals with general considerations, while the last three-quarters is devoted to special conditions. This work is intended for students, and only aims to set forth essentials without being in any way exhaustive. It is exceedingly well written, clear and concise. In many respects it is an ideal text-book for students, being brief, logical and practical. Some of the subjects, however, are treated with dangerous brevity. This can be best illustrated by reference to the chapter on "Diseases of the Perineum." Here the structure of the pelvic floor is admirably *illustrated* by four plates, but only the experienced gynecologist would understand the full significance of these plates without explanatory text. This chapter, to fulfill the needs of a good text-book, should briefly but adequately describe the muscular and fascial construction of the pelvic floor; should demonstrate clearly the relatively greater importance of some of these parts, and should show in the operations demonstrated that great mechanical principles of construction were being carried out. The failure to do this makes this chapter dangerously weak. It is a few such weak spots as illustrated by this chapter that detract greatly from the value of this work, which, with a few well-chosen additions, would make a splendid text-book. W. F. B. W.

Literary Note.

J. B. Lippincott Company announce that they will publish during the present year a translation by Dr. Albion Walter Hewlett of the Third German Edition of the "Principles of Clinical Pathology," by Dr. Ludolf Krehl, with an introduction by Dr. Wm. Osler, of Johns Hopkins University. The work is well known in this country and in Europe as an authority upon the subjects treated, and has been copyrighted in the United States under the Interim Copyright Act.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Adams, H. G., from 622 G st., Sacramento, to Pacific Beach, San Diego Co. Hrs., 1-2 and 7-8 P. M. Anderson, Thomas B., from 1433 D st. to Granger Blk., San Diego. Hrs. 10-12 A. M. and 3-5 P. M. Apple, Wm. W., from 411 Douglas Bldg., Los Angeles, to Young's Creek, Indiana. Arthur, Chas., from 1632 Sacramento st., San Francisco, to Sonoma. Hrs. 10 A. M. to 12 M. Austin, S. A., from 719 S. Spring st. to 306 Laughlin Bldg., Los Angeles. Hrs. 10-12 A. M. and 1-3 P. M.

Barber, F. Allen, from 927 7th st. to 805 F st., San Diego. Hrs. 9-10 A. M. and 2-4 P. M. **Baum, Maurice L.**, from add. unknown to German Hospital, San Francisco. Bishop, Andrew B., from San Jose to 1115 S. Hill st., Los Angeles, Cal. Bowers, Mary Bird, from 1378 Masonic ave. to 1457 Leavenworth st., San Francisco (not practicing at present). Brown, Robert S., from Magalia to Stirling City, Butte Co. **Browning, Chas. C.**, from Highland to Monrovia, Los Angeles Co.

Callinan, D. F., Jr., from 932 14th st. to 1065 Washington st., Oakland. Hrs. 1-3 and 7-8 P. M. Chambers, W. G., from 1223 W. Adams st. to 304-306 Laughlin Bldg., Los Angeles. Clayes, Wellington I., from 156 4th st. to 75A Howard st., San Francisco. Hrs. 1-3 and 7-8 P. M.; Sun., 12-1 P. M. **Cotter, P. Gregory,** from Trust Bldg. to Hellman Bldg., Los Angeles. Hrs. 11-12 A. M. and 2-4 P. M.; Sun., 9-10 A. M. **Cox, Thomas F.**, from 1005 K st. to 801 H st., Sacramento. Hrs. 1-3 and 7-8 P. M. Craycroft, Harry J., from 1006 N st., Fresno, to Shaver, Fresno Co. **Crediford, D. B.**, from Covina, Los Angeles Co., to Rialto, San Bernardino Co.

Delamere, H. S., from Cloverdale, Sonoma Co., to Ferndale, Humboldt Co.

Fine, Henry M., from 1020 Jackson st. to 521 12th st., Oakland. Hrs. 10-11 A. M. and 3-5 P. M. **Franklin, W. Scott,** from 751 Sutter st. to Dana Bldg., 218 Stockton st., San Francisco.

Geraldson, Lena A., from San Francisco to Newcastle, Placer Co. ,Gibbs, Judson S., from Grevelia and Perlermo sts., Los Angeles, to South Pasadena. Hrs. 9 A. M. to 1 P. M.

Harvey, Geo. W., from Watsonville, Santa Cruz Co., to Pittville, Shasta Co. Higgins, C. P., from 263 7th ave., San Francisco, to 1579 24th ave., East Oakland.

Hinckley, J. P., from Ventura to Fillmore, Ventura Co. Huntley, Arthur C., from 973 Sutter st. to 1952 Devisadero st., San Francisco. Hrs. 1-3 and 7-8 P. M.

Kelly, A. S., from 1155 Broadway to 1111 Washington st., Oakland. Hrs. 2-4 and 7-7:45 P. M. **Keyes, Henry S.**, from 418 Crocker st. to Emergency and General Hospital, Los Angeles. **King, Jos. M.**, from 217 S. Broadway to 324 Douglas Bldg., Los Angeles. Kirchhoffer, F., from 2610 Howard st. to 234 Bartlett st., San Francisco. Kurozawa, K., from 322½ O'Farrell st. to 3 Monroe st., San Francisco. **Kugeler, H.**, from 813 Sutter st. to Dana Bldg., 218 Stockton st., San Francisco.

Leonard, E. L., from Braly Bldg. to 343-344 Douglas Blk., Los Angeles. Lorentzen, H. L., from Petaluma, Sonoma Co., to 488 Eddy st., San Francisco. Lorini, Raffaele, from 2720 Sacramento st., San Francisco to Hotel del Coronado, Coronado, San Diego Co. (Name appears in Register as Rachael Lorini, correct to Raffaele Lorini.)

McCarthy, Dalton S., from Bradbury Bldg. to Hellman Bldg., Los Angeles. **McGettigan, C. D.**, from 223 Powell st. to Dana Bldg., 218 Stockton st., San Francisco. Hrs. 2-4 P. M. daily and 7-8 P. M. Tues. and Fri. **McQuiston, Caroline,** from 1329 Grand ave., Los Angeles, to 655 N. Fairoaks ave., Pasadena. McRae, Donald M., from 1111 Washington st. to 1214 10th st., Oakland. Means, Samuel Wm., from 807 Sutter st. to 973 Sutter st., San Francisco. Hrs. 3-5 and 7-8 P. M. Mendell, Louis C., from 2932 Washington st. to 2148 Broderick st., San Francisco. Miller, James Theodore, from 1451 Iowa st., to 1207½ W. Washington st., Los Angeles. Hrs. 10-12 A. M. and 2-4 P. M. **Millspaugh, Willard P.**, from 321 Bradbury Blk. to 336 Bradbury Blk., Los Angeles. Hrs. 9-11 daily and 1-3, ex. Tues. and Fri. **Moore, Edw. C.**, from 800 Alvarado st. to 337 Hellman Blk., Los Angeles. Hrs. 11-12 A. M. and 1-4 P. M. Morgan, A., from 1057 to 1066 6th st., San Diego. Hrs. 11-12 A. M. and 2-4 P. M.

Nagle, C. S. G., from 731 Sutter st. to 1919 Vallejo st., San Francisco. **Nelson, Thomas J.**, from Bryson Blk. to 609 E. 6th st., Los Angeles. Hrs. 1-4 P. M.

Perry, Carl D., from 110 Blackstone ave. to 106-107 Forsyth Blk., Fresno. Hrs. 10-12 A. M. and 2-5 and 7-8 P. M. **Pillsbury, Ernest S.**, from 360 Wilcox Bldg. to 735 Hellman Bldg., Los Angeles. **Pitcher, Josephine,** from add. unk. to Children's Hospital, San Francisco.

Renshaw, J. B., from 411 W. 7th st., Los Angeles, to Los Vegas, Lincoln Co., Nevada.

Shafer, J. E., from San Diego to Postoffice Bldg., Berkeley, Alameda Co. Hrs. 2-4 P. M. **Shepard, C. A.**, from Riverside to Needles, San Bernardino Co. Hrs. 9-12 A. M. and 1-3 P. M. Stewart, Dudley W., from 116 Stimson Blk. to 217 Henne Bldg., Los Angeles. Hrs. 9-11 A. M. **Stibbens, F. H.**, from 3038 16th st., San Francisco, to Jamestown, Tuolumne Co.

Taggart, Thos. E., from 110 Geary st. to 121 Geary st., San Francisco. Hrs. 1-4 P. M. **Teass, Chester J.,**

from Winthrop to Kennett, Shasta Co., Cal. **Thomas, Philip M.,** from 813 Sutter st. to Dana Bldg., 218 Stockton st., San Francisco. **Thorne, Walter S.,** from 813 Sutter st., to Dana Bldg., 218 Stockton st. Hrs. 2-4 P. M. Tilden, A. D., from Riverside to Hotel Gardena, Gardena, Los Angeles Co. Hrs. 7-9 A. M. and 7-9 P. M.

Walker, A. W., from add. unk. to Leighton Blk., Riverside. Walworth, Charles H., from 916 to 970 Market st., San Francisco. Wigand, Theodore, from 1815 Broderick st. to 1612 Scott st., San Francisco. **Wolfsen, L. H.,** from Merced to Sanitarium, Napa Co. Worley, Harry F., from 521 12th st. to 1117 Washington st., Oakland. Hrs. 1:30-4 P. M.

Yates, H. N., from Crockett, Contra Costa Co., to Pacific Grove, Monterey Co. Hrs. 10-11:30 A. M. and 1-5 P. M. Young, J. Audley, from add. unk. to Oakdale, Stanislaus Co. Hrs. 10-12 A. M. and 2-4 and 7-8 P. M.

New Names.

Davis, Theodore G., 626 Hellman Bldg., Los Angeles. Hrs. 11 A. M. to 12:30 P. M. and 2-4 P. M. Jefferson Med. Coll., 85. (C) '05.

Garvin, Chas. L., Bradbury Bldg., Los Angeles. Hrs. 10-12 A. M. and 2-4 P. M. Cooper Med. Coll., San Francisco, '95. (C) '96.

Haskell, Henry M., Redlands, San Bernardino Co. Bellevue Hosp. Med. Coll., '78. (C) '01. (Retired.)

McNab, Thomas R., 419 Trust Bldg., Los Angeles. Hrs. 10-12 A. M. and 2-4 P. M. Med. Dept. Univ. of Cal., '03. (C) '05.

Stanley, H. B., San Miguel, San Luis Obispo Co. Med. Dept. Univ. of Oregon, '88. (C) '94.

Swindt, Jos. K., Pomona. Denver and Gross Coll. of Medicine, '02. (C) '04.

New Members.

Los Angeles County—**Cave, Frederick P., Garvin, Chas. L., Green, D. S., Hunt, D. W., Kelsey, A. L., McNab, Thos. R., McQuiston, Caroline,** and **Swindt, Jos. K.**

San Bernardino County—**Crediford, D. B., Jordan, A. B.** and **McDonald, E. A.**

San Francisco County—**Baum, Maurice L., Howard, Joseph L., Jones, Henry I., Lyle, Annie G.,** and **Pitcher, Josephine.**

Shasta County—**Flora, G. E., Legge, Robert F.** and **Watt, Geo.**

Sonoma County—**Graham, A. R.,** and **Reynolds, R. G.**

Died.

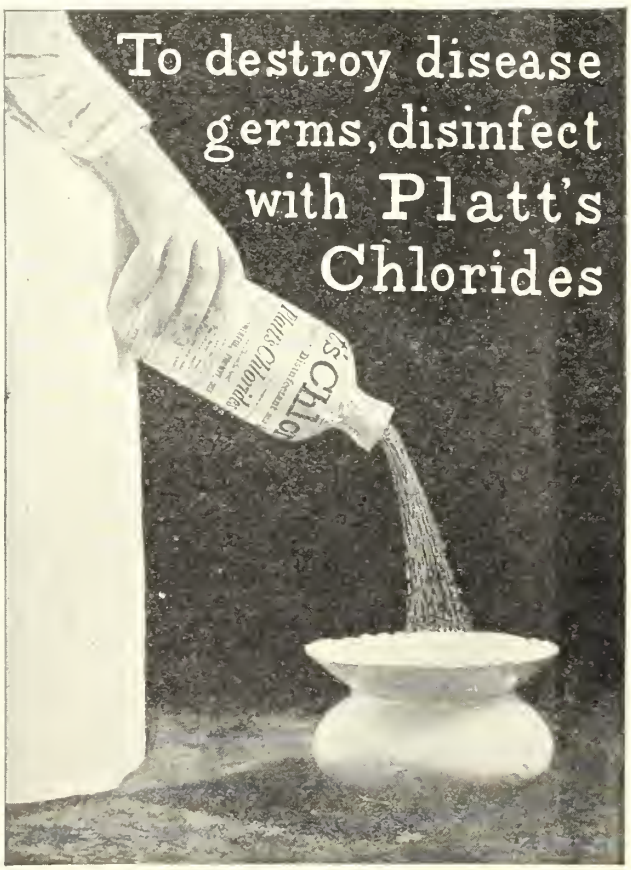
Bernhard, C. E., Deer Creek, Tulare County.
Briggs, D. D., Occidental, Sonoma County.
Burchard, Leonidas S., Oakland.
Hennessy, Frederick C., San Diego.
Linquist, Wm. M., San Francisco.
Thornton, Patrick H., San Francisco.
Walker, James W., Los Gatos, Santa Clara County.
Whitsitt, Francis H., Kernville, Kern County.

Memorial Meeting to the Memory of the Late Dr. N. S. Davis.

The Society for the Study of Inebriety and Alcohol will hold a memorial service to the life and work of Dr. Davis at Portland, Ore., on the evening of July 11, 1905, in Atkinson Hall.

Dr. Davis will be remembered as one of the founders and presidents of the American Medical Association, and also as founder and president for fourteen years of the American Medical Temperance Association. His numerous friends and contemporaries from both societies will unite on this occasion to commemorate his great services to both medicine and science.

The memorial address will be delivered by Dr. Henry O. Marcy of Boston, Mass., ex-president of the American Medical Association. Other addresses will be delivered by Dr. G. W. Webster, president of the Illinois Board of Health; also by Dr. W. S. Hall of the Northwestern University and Dr. T. D. Crothers of Hartford, Conn., Dr. John Hollister of Chicago, Ill., and Dr. Henry D. Didama of Syracuse, N. Y.; also others will contribute memorial notes of the work and personal influence of Dr. Davis in American medicine.



IN an address on Pulmonary Tuberculosis read at the State Medical Association, Waco, Texas, Professor David R. Fly, A.M., M.D., stated: "The chief medium of contagion is the atmosphere impregnated with dry particles of sputum expectorated upon sidewalks, flooring, bed or clothes, etc. It is obvious, then, that those engaged in making beds, sweeping and dusting rooms occupied by tuberculous patients, are most exposed. This danger, however, can be materially lessened by sprinkling the rooms with a solution of Platt's Chlorides, one part to ten of water."

The cuspidor should be washed out daily with boiling water, and a mixture of one part Platt's Chlorides and four of water kept constantly in it to receive the sputum. The patient's clothing should be kept by itself, and thoroughly boiled when washed.

FORMULA—A combination of the saturated solutions of Chloride Salts proportioned as follows: Zn 40 per cent., Pb 20, per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent. K 5 per cent.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. III JULY, 1905. No. 7

IMPORTANT NOTICE.

All members intending to attend the A. M. A. Meeting, Portland, July 11-14, should arrange for accommodations before they leave. Rooms in private houses may be had for $2.00 per day. If you have not arranged for your accommodations, address Geo. P. Lowell, 429 Montgomery Street, San Francisco.

A special rate of $25.00 for the round trip has been made, but this is good only on trains leaving San Francisco on Saturday Mornings.

EDITORIAL NOTES.

BEWARE OF SWINDLERS.

Probably there is a streak of credulity, more or less broad, in all of us. It is just this confiding credulity on which the swindler, the fraud and the faker bank. That enough physicians may be induced to part with some of their scanty and hard earned dollars to make it pay the swindler, accounts for the fact that there are never-ending attempts to "work" the medical profession. Very recently two such frauds have been called to our attention. One of them styles itself the "Specialists Formula Company," and has offices in one of the newest buildings in San Francisco. This concern seems to be engineered by a "Dr." H. C. Neff, an illegal practitioner. It has been sending out circular letters to physicians offering to sell, for the small sum of $10.00 (cash in advance, of course) a secret by means of which disease may be diagnosed at sight, and a formula which will cure everything immediately. Such things as cancer, cataract and hernia are guaranteed to be cured promptly and without operation. It is pitifully true that a few men (so far as we know, no members of the Society) have been caught and have parted with the ten. The other quack concern is known as the "McKanna 3 Day Cure" and, like the previous concern, is operated by an illegal practitioner. This "drunk cure" charges $100.00 also (and also, of course, payable in advance), and offers to give physicians sending in patients, $20.00 worth of stock in the company for each patient sent. If there were not some, calling themselves physicians, who respond to this sort of circularizing, it would not be done; it must pay or the quacks would not do it. But it is not pleasing to one's self esteem to think that there are men in the ranks of his profession so base as to gulp down these frauds.

STATE JOURNALS.

With July, two new state society journals will make their appearance; the Medical Associations of Ohio and Texas have recently so voted. We shall be very glad to welcome these journals when they appear, and we certainly extend to them every good wish for long, successful and upright lives. We would urge upon those who shall control the policy of these journals from their commencement to think carefully of each move that they make, and of each matter of policy which may present itself. Certainly, if they are to ignore the fundamental principles of the ethical relations of physicians to each other and to the public, and exploit, for dirty money, the numerous "liberal and prompt-paying" nostrum manufacturers, better far that they be still births. Already there are sufficient state society journals whose advertising pages are a disgrace to the medical organizations owning and controlling them, without adding to the number. If the publication of a medical society is to ignore those principles of ethics which govern, or should govern, the individual members of the society, and if it is to be bought by the dirty money of the nostrum maker just as freely as is the privately owned journal published for revenue only, then it has no excuse for existence, and had far, far better die in the borning.

THE A. M. A. FINANCES.

Undoubtedly there will be many matters of interest at the coming meeting of the A. M. A. at Portland. To those of us who have paid any particular attention to the financial statements issued by the Board of Trustees from year to year, and have read the comment thereon published in the STATE JOURNAL during the past year, the next report will come with special interest. Undoubtedly the Association has had quite as satisfactory a business year in 1904 as in 1903, and presumably will show a net profit of something over $40,000.00, or approximately four-sixths of the amount received as dues. If such is the case, it will again be evident that somewhere in the vicinity of $3.33 of the $5.00 which every member pays as yearly dues goes into a "sinking fund," formed for some purpose unknown. Now, just why should all members of the Association invest

each year in Chicago school bonds or real estate to this extent? Allowing for contingencies, it is apparently safe to assume that $2.00 of each member's dues are not needed by the Association. With this excess amount good interest-bearing securities are purchased for the benefit of—who or what? The Association certainly does not need it, for a fully equipped plant has already been purchased and paid for, and the regular yearly income is sufficient to provide for additions and depreciation. The Association really needs it less now than formerly, for that provision of the constitution and by-laws which provided for the Association's paying the expenses of its own meetings was, in some manner unknown to your delegates, got rid of at the last meeting (it does not appear in the present constitution and by-laws), and consequently each community with which the Association meets must pay these expenses, and hence must raise money by providing the usual and customary "hall of (disgraceful) exhibits": the "ten-cent side-show" of the great American Medical Association! The gratification of the sense of possession resulting from the consciousness of horded wealth is said to be most pleasurable, though the writer cannot speak from personal experience. But why should we gratify this sense in the Board of Trustees at the expense of our own pockets?

A GOOD SUGGESTION.

In last year's report (for the year 1903), the profit, approximately $10,000.00, was credited to the Association *Journal,* and the poor Association, apparently, was nothing ahead in its dues account, even though members had paid the aggregate sum of $63,237.48, and the total expenses of the Association, aside from the *Journal* account, were but $11,952.99. (See the last annual report of the Board of Trustees.) The suggestion has been made to us, and it seems good, that this excess amount of dues, being approximately $2.00 for each member, be put to some better use than acquiring "unearned increment" for an Association that does not need it. There are now a number of State Societies which publish journals; most of them are not rolling in wealth, and some of them are having a rather hard time in making good financial progress. To some it has even seemed necessary to follow the example of the *A. M. A. Journal,* and publish the advertisements of nostrums, in order to secure sufficient revenue. Now, why not pay this extra $2.00 per member, which obviously the Association does not need, to those State Societies which publish journals, and which many of them really do need? In the case of some societies that do not seem to need this money, it would permit them to drop from their advertising pages those things which now disgracefully adorn them. Consider, for instance, Illinois. There are probably at least 1,500 members of the Association in that state. The $2.00 per member rebate would certainly pay that society more than it now receives from promoting the use of such nostrums as uriseptin, antikamnia, pepto-mangan, etc., in the pages of its *Journal.* The New York State Medical Association, with its 1,130 A. M. A. members, could afford, in the event of receiving such a rebate, to discontinue the edifying spectacle of promoting, through the advertising pages of its *Journal,* such nostrums as pasavena, antiphlogistine, peptomangan, sanmetto, chionia, respiton, seng, aletris cordial, etc. Would it not be making this excess money do some actual good, as against merely accumulating "unearned increment" which does nobody any good, to thus devote it to the noble purpose of enabling State Societies that publish journals to actually live up to the "principles of ethics" which they have, so far as empty words go, endorsed?

TORTURE IN CALIFORNIA.

The following remarkably interesting editorial paragraph appeared in the *St. Louis Medical Review* for May 20th:

"A woman suspected of murdering her husband was submitted recently in San Francisco to the process commonly termed the 'third degree.' Her child was taken from her, and she was forced into the autopsy room at the morgue, where were collected the mangled remains of her husband, together with the blood-stained instrument with which the crime was committed and other ghastly relics. The unfortunate woman became insane. We fail to see any essential difference between such a procedure and those which are now-a-days condemned so vigorously which were said to have been practiced in the middle ages by the Spanish inquisition for the purpose of extracting confession from its suspects."

Apparently this refers to the celebrated Tortorici case, and is perfectly correct, except for one or two minor details. The woman was *not* suspected of murdering her husband, but of conspiring with her husband in the murder of a third person. Incidentally, and in passing, it may be said that she was indicted by the grand jury as particeps criminis. The other unimportant detail is that she did *not* become insane, but took the whole thing very stoically, and was subsequently released on her own recognizance, owing to insufficient evidence on which to try the case. We are pretty atrocious people out here in California, but it has been said that even the devil is not quite so dark in color as some of his detractors would represent him.

COUNCIL ON PHARMACY.

The first report of the Council on Pharmacy and Chemistry of the American Medical Association has just been published in the *Journal* for June 3d. The Committee on Chemistry analyzed a number of preparations (see page 223) which claim to be chemical compounds, and found them to be merely mixtures. In the same number of the *Journal* is an editorial calling the attention of the medical profession to the tremendous sig-

nificance of this fact, and the manner in which the confidence of the medical profession has been abused. This is particularly interesting for the reason that your JOURNAL has been rather insistently discussing the same thing for the past two years, and sincerely welcomes this change of heart in the *Journal A. M. A.* The surprise of the *Journal A. M. A.* is a bit difficult to understand, for 5 years ago it said, editorially, in referring to two of the nostrums reported upon by this Council on Pharmacy and Chemistry (ammonol and phenalgine), that they "should never receive medical patronage." Shortly after making the editorial statement just quoted, the advertisement of these two nostrums appeared in the pages of the *Journal,* and continued to appear, at more or less regular intervals, until April 1, 1905. This incident certainly warrants one in wondering whether the analyses so recently published will, in time, be forgotten and the advertisements of these nostrums again be received in the *Journal's* pages. It has been said that "history repeats itself"; let us wait and see.

THE RULES OF THE COUNCIL.

By a curious coincidence, two items were received in the office of the JOURNAL within the hour. One was a copy of the *Journal A. M. A.* for June 3d, and the other was a box containing what appears to be several original packages of a medicinal preparation known as sal hepatica. The Council on Pharmacy and Chemistry of the Association has announced certain rules which, it was said, were to govern the *A. M. A. Journal* in the acceptance or rejection of advertising matter. These rules were published in the STATE JOURNAL for April, at page 103; two of them are of special interest: Rule 1. "No article will (*sic*) be admitted unless its active medicinal ingredients and the amounts of such ingredients in a given quantity of the article, be furnished for publication." Rule 4. "No article will (*sic*) be admitted whose label, package or circular accompanying the package contains the names of diseases in the treatment of which the article is indicated. The therapeutic indications, properties and doses may be stated." The *Journal* mentioned contains the advertisement of sal hepatica, in which it is recommended for the treatment of typhoid fever, etc.; so it evidently is regarded as a medicine. The nearest approach to a formula is, "Sal hepatica is composed of the chemically pure salts which analysis has shown to be present in the most celebrated purgative, 'Bitter Waters,' of Europe." The names or the quantities of these salts are matters left to the imagination. On the package of the "article" which we received, it is stated that it is useful in gout, rheumatism, affections of the kidneys, bilious attacks, skin diseases, constipation, alcoholic excess, headache, dizziness, heartburn, etc., etc. We may be unconscionably stupid, but we fail to see how the advertisement and the package of the article comply in the slightest particular with the rules of the Council. Perhaps these rules are to be added to "lovers' promises" and "pie crust," in the list of things which are made, only to be broken.

INSURANCE EXAMINATIONS.

Another county society has taken up the question of cheap insurance examinations, following the lead of Placer county. Sonoma county considered, at its June meeting, the adoption of a resolution in support of the Placer County Society, calling for a minimum fee of $5.00 for life insurance examinations, and $2.00 for examinations for benevolent orders. Other county societies should carefully consider this matter. As we have pointed out on previous occasions, $5.00 is surely little enough money for an examination that is worth anything, and a poor, unreliable, cheap examination is a real harm to the company issuing the insurance and a danger to the insured. If a company is so cheap that it will scrimp in the matter of paying for and getting proper examinations, its business management is certainly open to question, and the liability of its insuring unsafe risks, based on cheap examinations, cannot be ignored. In the last few months we have seen, from the daily, weekly and monthly papers all over the country, how some of these mammoth insurance companies recklessly gamble with the trust funds in their hands, and how their officers squander hundreds of thousands of dollars; yet some of them cannot afford to pay the physician who makes the examination on which the issuance of the policy depends, the small sum of $5.00!

A WORD OF APOLOGY.

The Publication Committee and the editor desire to present to the *New York Medical Journal* their apology for permitting the publication, in an editorial referring to it, in the May issue of the JOURNAL, of the following phrase:

"Its advertising pages are notoriously an abomination of desolations, and even its editorial pages have been bartered for coin."

In this whole controversy anent the advertising question, we have been actuated by an appreciation of a broad general principle, the truth of which cannot well be gainsaid; we have not indulged in petty spite, nor have we had the slightest desire to abuse, slander or libel anyone or any journal. Consequently, we fully, freely and unqualifiedly retract and withdraw the statement quoted. We do not know that the editorial pages of the *New York Medical Journal* "have been bartered for coin." The fact that many medical journals are influenced in their editorial utterances by motives centering in their business department, has been so often commented upon by writers on medical subjects that it seems pretty generally accepted; but to make the bold assertion that any particular journal had actually sold its editorial pages is an entirely different matter.

ASTONISHING IGNORANCE.

We take pleasure in presenting elsewhere in the JOURNAL a paper read by Dr. Asay at a meeting of the Santa Clara County Society, in which the evidence presented during the progress of a rather unusual case at law is extensively abstracted. This case serves to again accentuate the fact that it is exceedingly difficult to get a jury of 12 men to agree upon a verdict in favor of a corporation and against an individual. It also illustrates the astonishing ignorance of some legal practitioners of medicine. It is certainly difficult to imagine a regular and reputable legal practitioner of medicine going upon the witness stand and testifying that, in his belief, a blood clot formed at a certain place on the brain and became organized, and that, subsequently, portions of it broke off and traveled about within the cranium, locating themselves at various places and producing a considerable variety of symptoms. Yet it appears from the article referred to that this actually occurred, and that there was other evidence about as intelligent.

PROPRIETARY PHARMACISTS AND STATE MEDICAL ASSOCIATION JOURNALS.

"The Texas State Medical Association's *Journal*, to begin July 1, will have to dance to the music of the Chicago Octopus (the *Journal A. M. A.*) and its ethics, as to proprietary medicines to be advertised will be prescribed by that organ, or, rather, by its ex-homeopathic editor. He is behind the State Association journal movement in all the States, and in only one State (California) is such a journal paying expenses, and the California journal is bucking against said octopus, and its editor. Simmons (ye editor) "draws the line" at all proprietary medicines the formula of which is not published, or mention is made of any disease in which it is recommended, and under that autocratic ruling—which all State journals must obey or be "unethical",—Antiphlogistine, Antikamnia, Ammonol, Unguentine, Ergo-Apiol (Smith), Pepto Mangan (Gude), Tongaline, Listerine, Peter's peptic Essence, Arsenauro, Glycerophosphates Compound, Ecthol, Glycothymoline, Upjohn's preparations, and many other of the best preparations owned by the most liberal and prompt-paying firms, will have to be excluded. Getting $2400 worth of cash advertising to start with, after obeying the ethics of ye Octopus, is easier said than done. Does ye Octopus think these parties are going to give their trade-marked and protected business to every substitutor in Texas? Not much."—*Texas Medical Journal*, May 1905.

[At its last meeting, the Texas State Medical Association voted unanimously to publish its transactions in the form of a monthly journal, and this scheme did not appeal to the editor of the Texas Medical Journal, (hence the "howl") a journal which refers, editorially, to itself as "the red back." One wonders, in passing, what its editorial nick name for itself would be if the color of the binding were gray instead of red.

It is not a pleasure to learn that ours is the only State whose society journal is paying expenses, for we wish them all well. In the article quoted above, the statement is made by inference that our JOURNAL has been "bucking against" the *Journal A. M. A.* because it desired to enforce strict rules governing ethical advertising. This is startlingly amusing to any one at all conversant with the actual facts. Dear "red back," let us enlighten you. We have been "bucking against" the *Journal A. M. A.* **not because it desired to enforce any rules governing the nature of advertising matter** to be accepted by a decent journal, **but because it flagrantly violated all of its own rules and the very fundamental principles involved.** The editor of the "red back" may like to see the medical profession used in exploiting the nostrums which he mentions, but there are a good many of us who do not want the dirty dollars they spend in advertising, even if they are the "most liberal and prompt paying firms." That one quotation explains the whole thing; it is a case of dollars *vs.* decency, and in some quarters, dollars will undoubtedly win. But we believe that there are enough honest men in the medical profession to, when their eyes are opened to the real state of depravity which the dollar seekers would lead them into, insist upon the retention of their own virtue.]

PROPRIETARY THERAPEUTICS.

H. C. Wood, Jr., Philadelphia (*Journal A. M. A.*, June 10), considers that the increasing use of proprietary drugs is exceedingly detrimental to the best interests of medicine. He refers more particularly to nostrums or mixtures and not to definite chemical compounds which may be the property of some manufacturing druggist. While these latter may not be an unmixed blessing, whatever objections he has to them are based on essentially different grounds. The great fundamental objection to nostrums is that to all set and unalterable formulæ, they must necessarily be a misfit in the ever-changing aspects of disease. Another is their secret or semi-secret nature, and this is all the more dangerous when it is masked by a deceptive show of frankness. There is no universal assurance that even the alleged composition is the true one, and some of those that publish a formula attempt to obscure the real nature of their mixtures by using uncommon names of well-known drugs or including some unfamiliar ingredient which may be assumed to have some special virtue. A common defense of these nostrums is that of their value as property. Wood asks: How have the manufacturers acquired such valuable property rights? Have they hired men to be sick to prove the virtues of their compounds, or has the medical profession been willing to utilize human suffering for the benefit of the nostrum vender? The reasons why these nostrums are so profitable to their manufacturers are, Wood thinks, the imperfect therapeutic instruction given in our medical schools and the extremely lavish and often very shrewd advertising they receive. It has been estimated that $600,000 is expended annually in advertising secret nostrums, but Wood considers this far short of the true amount. These hundreds of thousands of dollars are paid, he says, out of the physicians' pockets and their patients' lives, and yet the medical profession is blind enough to let the process continue without complaint. The nostrum venders, he says, at a conservative estimate, have obtained control of the reading columns of two-thirds of the medical journals of this country, and it is time, he thinks, to call a halt.

Examination by State Board.

The next regular examination of candidates to obtain license to practice in this state, will be held in San Francisco and also in Los Angeles on July 19th. The necessary credentials, affidavit, etc., must be filed with the board at least two weeks before the examination, in order to give ample time for the proper scrutiny of all credentials. The board apparently intends to examine very carefully all credentials presented, and thus endeavor to avoid the frauds and attempts at fraud which have been committed in other states. All communications should be addressed to the Secretary, Dr. Chas. L. Tisdale, 530 California Street, San Francisco.

Will Talk at Portland.

Professor Hirschburg of Berlin University, the specialist in ophthalmology, will make an address before the American Medical Association.

A MEDICO-LEGAL CASE.*

Reported for "Journal by J. LAMBERT ASAY, M. D.

IN THE Superior Court of Santa Clara County, State of California.

Otto H. Dogge, plaintiff, vs. The Fidelity & Casualty Co., a corporation, defendant."

A history of the case of which the above entitled action is the outcome was read before the State Medical Society held at Santa Barbara, April 21-23, 1903, by H. J. B. Wright, M. D., of San Jose, "Was it a case of meningeal hemorrhage, hysteria, or malingering," and published in the JOURNAL of February, 1904. The details of the article appear to be somewhat inaccurate, but sufficiently correct, in general, for the reader's perusal in connectiou with the testimony hereinafter given.

The case was submitted to a jury of 12 men. By law the agreement of 9 jurors in such trials constitutes a verdict. For 3 hours, 4 of the 12 disagreed; at last one of them was won over, which made the requisite number for a verdict.

The plaintiff, himself a physician, sought to recover about $7,500.00 for alleged injury received by being struck on the head by a rock while riding in a passenger railway car on a trip from San Francisco to San Jose, resulting in an unconscious period of 7 months, and paralysis of left side of several months' longer duration. The rock was a piece of mineral ore, probably hornblende, not found in the geological formation of that locality; weighed 19½ ounces, or a little over a pound and a half troy.

At the time of the alleged accident the doctor's condition aroused much sympathy among his fellow practitioners, many of whom called, offering their services in any manner helpful. This feeling, however, was soon changed to disgust, so that out of the 15 physicians in attendance and consultations, all but 4 withdrew from the case.

In the course of litigation the doctor was ably supported by the 2 newspapers of San Jose, which had also, from time to time for a year or more previous, published commendatory articles referring to his skill and extraordinary accomplishments acquired in German hospitals and universities, embellished with his portrait, wearing a plug hat. While the court was occupied with the hearing of the case, these newspapers reported only such testimony as suited their purposes, presumably with intent to manufacture public sentiment in favor of the doctor. In glaring headlines they called attention to the "strong testimony" for their protegé, lauding it no matter how inconsistent; distorting, suppressing or ridiculing that unfavorable to him, in one instance going so far as to libel one of the medical witnesses for the defense. One of the proprietors was, on more than one occasion, observed fraternizing with the doctor in the presence of the jury, that it might be impressed with his patronage. It is fair to presume that it was the intention of these newspapers to so influence the minds of the jury that it would bring in a verdict favorable to their interests. That their efforts did have this effect was subsequeutly demonstrated.

A motive for newspaper interference always exists. It was not lacking in this instance. These journals were owned and controlled by two men of great wealth, said to have been acquired under the direction of disembodied spirits. It is also asserted that the doctor was under pecuniary obligations to them. Be this as it may, the doctor had allied himself as a trustee to a church they had recently founded for the propagation of their peculiar doctrines. Besides this a relative of the owners and a member of their household was widely known as a clairvoyant healer, and practiced its art. It was she who, after all the doctors had failed to cure or relieve the patient, worked upon him a supernatural miracle; removed all the blood clots from his brain; banished his paralysis; dissipated his hemianopsia; healed his deaf ear; restored to fullness his atrophied arm, and bestowed upon him full health and vigor of youth.

Any other verdict than that given would have reflected disparagingly upon the miraculous powers of the healer. It would not do to have blood clots spirited away when none had ever existed. It must be proved that they did exist, and that, too, in plenty; that they were scattered all through the brain of their cerebrally disordered friend like loose rocks rattling about in a tin can tied to a dog's tail. The jury found it so proved.

It should be mentioned here that the proprietors of the newspapers are also the recognized manipulators of politics in the county where the trial took place. On one occasion one or both had a bill introduced in the legislature of this state repealing the present medical practice act, which bill, fortunately, failed in committee.

The doctor, as seen in court and on the streets, appears as a man of about 58 or 60 years of age; of weight about 180 pounds; temperament neurotic. His carriage erect; walk rapid, with no perceptible halt in his gait. Carries a stout caue, not to assist in locomotion, but apparently for company. He also has full and free use of his arms. His mentality is not impaired, for he was quick to see an adverse point, aud prompt his counsel. His head is bald, with the exception of a fringe of hair running behind from one ear to the other. He is of foreign birth, presumably a native of southeru Russia. Has been a resident of San Jose about six years. Previous to his arrival in California (1899) his abiding places had been to the number of at least 12 in this country, and his experiences in each place, so far as could be ascertained, were of singular uniformity. His family cousists of a wife and small boy, now 12 years of age; about 10 at the time his father was said to have been injured. He was with his father on the train on that memorable day, and occupied a seat in front of him. He saw a man sitting on the roof of a freight car, but did not see any rock thrown. He was a bright boy, and received encomium from the newspapers the day after for his testimony. He exhibited to the jury a retentive memory of those matters which, no doubt, he had often heard discussed in the family sitting room and at the dining table.

Upon the doctor's advent in San Jose, the resident physicians, knowing nothing of his previous history, welcomed him with their customary hospitality to strangers. He claimed to them to have studied medicine in Germany, and to have graduated from the University of Berlin, besides having taken a number of post-graduate courses at other universities, chiefly at Vienna, Heidelberg and Leipsic. These claims were insisted upon by the doctor's friendly newspapers to the day of trial. The statement of his graduation from Berlin was disproved not only by his own admission under cross-examination, but by an official letter from the secretary of that university to the secretary of the Santa Clara County Medical Society, as follows: "He is not a graduate from the University of Berlin. Furthermore, he has never studied in Berlin."

The doctor also admitted in his cross-examination that he had been arrested and convicted in one of his former places of residence for practicing medicine without a license.

Some idea of the doctor's history before coming to California can be obtained by a perusal of the decision of the supreme court of Nebraska in the case of "Hart vs. Dogge, et al.," contained in "Northwestern Reporter," Vol. 42, page 1035, to which reference was made in his cross-examination. Of his reputation, out of 27 inquiries made by a former secretary of the Santa Clara County Medical Society and other parties, addressed to State Boards of Medical Examiners, presidents of State Medical Societies, State Boards of Health, physicians and others of localities where the doctor had formerly resided and practiced, 26 replies were received. In no single instance was there a good word for him; on the contrary, some of the answers contained such expressions as "He was regarded as an unscrupulous, ignorant, dangerous

*Read before the Santa Clara County Society, May, 1905.

man," "a quack," "an advertising fakir" and "unblushing charlatan." "So long as he is out of his 'pine box' he will victimize the public."

A feature of the trial was the attempt on the part of the plaintiff to exclude testimony of physicians for the defense. In one instance it was successful. Plaintiff contended that the relation between physician and patient was confidential; in law "privileged." Therefore these physicians could not be permitted to testify without the consent of the patient. The patient in this case being the plaintiff, strenuously objected to the defense being permitted by the court to introduce such medical testimony.

The defendant on the contrary argued that the question of "privilege" otherwise existing between physician and patient had been waived by plaintiff by the introduction of testimony on his own behalf of 3 physicians who had attended him, in the effort to prove a disability. In so doing the bars had been let down, and hence it became fully competent for the defense to introduce witnesses who had also attended plaintiff to show that a different state of facts existed from that testified by plaintiff and his witnesses.

The court ruled that as there had been no decision on this question by the supreme court of this state, only such testimony would be allowed as that observed by physicians while in consultation, one with another, and must be in the nature of rebuttal.

The witness for the defense who was not permitted to testify under the above ruling of the court is a physician of marked skill and repute in the community. He had been called to see plaintiff among the first, but was not in consultation with other witnesses. What reason plaintiff had for objecting to his testimony; what dangerous secrets were likely to be divulged; what evidence given damaging to the plaintiff, must be left to conjecture. Certainly plaintiff dreaded a disclosure, else, logically, he would not have forbidden it.

A brief synopsis of the evidence can only be given. That copied verbatim from the transcript of the court reporter appears in quotation marks.

The plaintiff, Dr. Dogge, testified in his own behalf, July 18, 1902. He was sitting alone, with his hat off, by an open window on the right side of a railway car coming to San Jose from San Francisco; second seat from rear end. He was reclining with his head resting on the back of the seat. Seats behind and opposite unoccupied. Train stopped at Menlo Park. As train pulled out, moving very slowly, it passed a number of freight cars standing on adjoining track. He observed a man sitting on the edge of the roof of one of the freight cars. Did not see the man have any rock or attempt to throw one. "I was struck then." "The minute as I saw him I do not know anything more." "If I was unconscious or not I did not know anything since that time." "I do not know what struck me." He had no recollection since that time of anything that occurred during 7 months following when the casualty company sent its medical representative (Dr. Williamson) to San Jose to administer the ether test to determine the question of paralysis, which test was not permitted to be made. "That is the first I remember." Upon returning to his senses he found his "whole left side paralyzed," with atrophy of left arm and edema of left ankle. Nine months after injury "I was ready to go on crutches." At the time of injury "I was a strong man," free from disease. He was a "gynecologist," conducting a private hospital, and had a professional income of from $100.00 to $125.00 per week.

(Defense did not attempt to disprove statement of plaintiff's income, for the reason, afterward learned by the writer, that the report of the supreme court of Nebraska showed that the lower court had found plaintiff guilty of falsifying his books to account there for a large income; that it was presumed that he (plaintiff) profited by this experience, and had become so expert in the manipulation of his book accounts that detection of any fraudulent entry which might exist would be impossible; and the further reason that the testimony would at best be negative and contradicted by plaintiff's wife and friends, as well as by his books. It should be noted, however, he admitted he kept no bank account.)

On cross-examination, plaintiff said he was right-handed; could work with both hands; still very weak in his left side; physically was sufficiently recovered as to have been again engaged in practice for over a year. Mentally did not have full control of medical terms; in writing prescriptions, was more frequently compelled to refer to his books. Could not perform surgical operations as well as before injury. Plaintiff could not recollect places of his former residences until reminded by the questions asked, "While residing in Lincoln (Nebraska), were you not arrested and convicted for illegally practicing medicine?" and "are you the Doctor Dogge named in the case, 'Hart against Dogge, et al.,' reported in the 'Northwestern Reporter,' volume 42, page 1035?" at which he became angry, and in his attempts to explain, suddenly remembered all the facts and places perfectly. He also admitted that about a year previous to injury he suffered from blood poisoning, for which the same company had paid him $100.00. At another time he had had "pectoral neuralgia," for which he had gone to a hot springs resort.

Dr. Ed. Ulrich (homeopath) testified that he was acquainted with Dr. Dogge. Was sitting a few seats in front of him on same side of train. Was looking out of car. His attention was attracted by a "loud yell" from plaintiff; got to him in "10 seconds." Found him sitting, holding his hand to right side of his head, and moaning that something had hit him. Examined for injury. "It looked as if somebody had struck him with a hammer." "It was a round spot that began to puff up and look bluish in a very short time." "It was the size of a full quarter of a dollar, and began to turn bluish, with an *ecchymosis* condition of the skin and more or less injured capillaries." A piece of rock looking like mineral ore, with jagged edges and corners, fell from car seat to floor, and was picked up by bystanders. Witness took the rock and said to Dr. Dogge, "See, this is what struck you"; placed it in plaintiff's hands, and they both examined it. Dr. Dogge said, "Oh, what a rock." "He did not remain conscious all the way to San Jose. He had a number of *terrific convulsions*, so that it took 2 or 3 men to hold him." "It was 5 or 10 minutes after his cry that he lost consciousness." "Convulsions involved entire body. He just straightened out." Witness also stated there was no abrasion or "cut" of the scalp. Kept ice water on spot. He was conscious when not in convulsions; when he came out of one he inquired for his little son. Witness saw no one on roof of freight car. Did not see any rock thrown or strike the doctor. Arrived at San Jose about 20 minutes later. Did not accompany doctor home. "It was 2 or 3 months after that I saw him again; at that time I did not talk to him; he just nodded his head."

Mrs. McLean, dermatologist, was on same side of car as plaintiff; looking out of window when accident happened. Saw no one outside of car; freight cars were there, but saw no one on roof. Did not see any rock thrown. Reached plaintiff about 5 seconds after his outcry; found place on bald scalp just above right temple, size of quarter dollar; it was already "black and blue." There were no abrasions or lacerations; "4 or 5 minutes after he was struck, doctor went into convulsions; they involved the entire body and face." He was conscious except when in convulsions; heard him ask "What has become of my little boy?" and he was told some ladies were taking care of him. Assisted in keeping ice water to injured spot.

A fellow countryman, witness for plaintiff, became violently bellicose under cross-examination at detecting a smile on the face of defendant's counsel, and with much emphasis informed him: "In my country you vould not dare do dat." The judge at last pacified him by explaining the customs of civilized people. This witness saw his doctor friend next morning after he had been hurt. "On the right side

of his head was a big black spot like you get in a prize fight." He remained with the doctor several weeks, so as to hold him dowu while in convulsions. They involved the whole body. In third week they were on right side of body only. In convulsions he frothed at the mouth and bit his tongue. Left side was dead, had no feeling. Could not speak; he was unconscious all the time witness remained. After awhile his left arm shrunk away and his ankle swelled.

The further usefulness of this witness during the trial was to assist in impeaching the veracity of defendant's medical wituess, who, with 2 of plaintiff's physicians, testified they had never seen or heard of him before.

Dr. Trucman, for plaintiff, saw Dr. Dogge several hours after, on night of injury. "He was in hed with eleptiform convulsions; intervals of rest between them. They were clonic. There was a slight abrasion with discoloration perhaps an inch wide and two inches long from temple, on right side, with considerable swelling. Eyes open and unwinking. Touched cornea with my finger and there was slight response; eyes would slowly close;" left eye normal, right (pupil) dilated; contraction decidedly impaired in left arm; arm was beginning to be flabby and paralyzed." He was unconscious. "Next day convulsions were becoming unequal; inequality of pupils not so marked. Third day pupils were even. If you made a motion over eyes they would wink; in shouting to him there was a perceptible motion of his head. During last day of first week his mind became clearer; he recognized me and made an effort to talk; sensation at this time (paralyzed side) was lost; left knee jerk exaggerated." No indications of fracture.

Cross-cxamination—"There was slight ecchymosis on head; not much swollen, but puffed and reddish; abrasion was slight, and had appearance of 2 or 3 or more scratches such as you might make by running your fingernails across your forehead hard enough; scratches extended from angle of right eye on frontal hone." "Before end of first week doctor recognized me." "Do not remember that he had hemiopia. He was fully conscious about the first 2 or 3 weeks; at that time he conversed and seemed to understand what he was talking ahout. At the second consultation (eighth day) Dr. Dogge recognized those he had known and called them by name; he was fully conscious." "Had both motor and sensory paralysis; paralysis was progressive." "Operation of trephining had heen proposed. I was not in favor of operating." Witness also stated ou his direct examination that the paralysis was due to hemorrhage on the cortex of the brain, beneath seat of injury on the scalp.

Dr. H. J. B. Wright, for plaintiff—"Was called to Dr. Dogge August 8, 1902" (20 days after injury). "Found slight discoloration on right side of head, no abrasion; no sign of black and blue; left side paralyzed; eyes normal; muscles of left side of body relaxed; blind in nasal half of right eye; had aphasia not marked, ideation impaired; heariug of right ear affected; patellar reflex exalted ou both sides; plantar reflex acute on right side, entirely absent on left." Witness also stated that there was both motor aud sensory paralysis of left side; would not respond to pinching or pricks of pins. "Saw needle thrust under left thumb nail until blood came without causing pain. Drs. Burns, Cothran and myself suggested operation" (trephining). Soon after "the doctor's wife stated to me he (Dr. Dogge) did not want an operation. He indicated, however, that he was satisfied to have nature take its course. He was sufficiently intelligent to indicate to us that he did not want an operation performed." A cantharidal vesicant was therefore applied over injury, which produced strangury and blood in urine. A few days after found superficial reflexes gone on left side and right nearly normal; tried electricity; left side would not respond at all, or very poorly. Made this examination 30 or 40 times.

"Injury was over back part of frontal bone and partially over anterior portion of right parietal bone, covering sagittal suture, tongue aud groove." "My opinion is that the doctor's hemorrhage was between the outer covering and the brain surface." "The discoloration was the color of a man's face when quite warm; a bluishness was there." "First time I called I examined reflexes; eyes natural, pupils not dilated. I was in favor of operation." Saw doctor at times in convulsions; were clonic; involved cervical muscles, throwing head forward and to the left, aud also those of the right side of the body, left being quiescent. Would throw himself about in a violent manner, necessitating restraint; epileptiform iu character, lasting from half a minute to half an hour; in convulsions he would often "rest on his back aud heels." About eighth week convulsions became wholly nocturual. In the course of time atrophy of left arm appeared; finger and toe nails became yellow and brittle. About eighth month left arm measured one and a half inches less than right arm. A hemorrhage would be more liable to occur with the doctor at his age (59) than in a younger man, on account of the arteries becoming brittle. Wituess was asked on cross-examination to account for the hemianopsia with blood clot in location described, to which he answered, "I think clot shifted its position down to the under side of the brain where it might involve a great many nerves without occupying much space" (illustrating on blackboard). A fragment of blood clot might have got down here and pressed upon a fasiculs of the optic nerve. "I think some of the blood clot on surface of doctor's brain may have been shifted; a small portion would break off and slip into a new locality. There is uo mechanical reason why it should not shift. By a clot, I meau blood somewhat solidified."

Cross-examination being continued the following morning, witness, in order to account for the sensory paralysis, volunteered this explanation: "I think I have not said that the blood clot was necessarily under the spot where the blow was received. It don't necessarily follow that it was; but I say I think it was in part, but I also believe there was a blood clot at the base of the brain." "Three mouths after injury he was ratioual, and described injury to me." Between 8 and 9 months plaintiff was able to go and visit witness in his office. "He dragged his left leg and foot."

(This witness is evidently confused in his dates. The operation which he states he and others suggested was proposed at the first consultation, July 25th, at which he was present.)

There was a conflict in the evidence as to whether he ever hit his tongue or had iuvoluntary evacuations of the bowels duriug convulsions.

The defendant company alleged deception. That plaintiff was a malingerer; had uot been injured, nor suffered from injury as claimed. It supported its contention by the followiug testimony.

It was shown by the brakeman of the car on which plaintiff was riding that there was uo one in sight outside of the car when the doctor claims to have been struck. He testified that he looked at plaintiff's scalp with Mrs. McLean and Dr. Ulrich, but saw no wound, swelling or discoloration. He accompanied plaintiff home. Dr. Dogge walked, assisted from his seat in the car, across depot to a carriage; got in and was driveu to his residence. Witness identified rock exhibited as being one picked up in the car.

Dr. E. Wagner, specialist—Made opthalmoscopic examination of Dr. Dogge's eyes about twelfth day after alleged iujury. Eyes normal; nothing wrong with fundus or media.

Dr. Roht. Caldwell, physician of forty years' experience—Was called to Dr. Dogge. Saw him the next day atter he arrived home. Met there Dr. A. McMahon, since deceased. Examined head for injury; no indications of fracture; no tumefaction; no ecchymosis nor other discoloration; no ahrasions or laceration of scalp. Feigned unconsciousness. "There was an intelligence, watchfulness aud *qui vive* in the face strikingly different from the blank relaxed countenance of a man really uucouscious." Diagnosis, shamming. Was afterward present in consultations

of 7 or 8 physicians. Had no reason to change my opinion. Am still of opinion that Dr. Dogge suffered no injury as claimed." Witness was not permitted to testify of matters observed by him when not in consultation.

Dr. L. Cothran—First saw Dr. Dogge 42 hours after he had been brought home. Visit was fraternal. Heard history from doctor's wife. She indicated locality where she said rock had struck: right side of head about over coronal suture. Place lacked all evidences of traumatism; no abrasion, swelling nor discoloration. Had no reason at time to suspect deception. Had no intimation of any accident insurance policy until 4 months after. Four days later (July 25th) was present at consultation of 8 physicians; was then chosen by lot to attend case. Trephining was suggested, and arrangements made for operation. Next day witness was informed by plaintiff's wife "that the doctor gave unmistakable evidence that he did not want any operation." This aroused witness' curiosity, as Dr. Dogge was supposed to be unconscious. Before consultation the day following, however, he was conscious of everything, including proposed operation. A few days after this, nurse reported to witness that she saw Dr. Dogge lift his paralyzed arm, during the night, without assistance of the right, and place his left hand back of his head. Soon after another nurse reported to him that several times she had observed Dr. Dogge raise his supposed paralyzed arm, unaided by his right, and place his left hand back of his head.

Witness therefore immediately called another consultation and explained circumstances. Inquiries and critical tests were then and there made, and he, with others, then concluded plaintiff had all the time been shamming. Several physicians then expressed disgust, and withdrew from the case. Being asked why he and others arrived at such conclusion, witness continued: Attention was especially directed to left arm from nurses' reports, tests were made which demonstrated the arm was not paralyzed. Witness also joined in tests made by other physicians present which showed that pretended deafness in right ear, and hemianopsia were spurious; that paralysis of left leg was feigned. Convulsions were of voluntary type, and on wrong side of body (right side) duration of from 10 minutes to 2 hours too long, floundering, violent, requiring attendants to hold him in bed; no period of coma after seizures, but instead, emotional spells of crying; no biting of tongue nor bloody froth. No loss of control of sphincters. Apparent lack of sensibility in left side and under thumb nail to pricks of pins and needles, witness believed might be accounted for by stoicism on part of plaintiff, or by auto-suggestion. Witness was asked if he still adhered to his opinion of plaintiff's malingering. He replied it was fully confirmed by evidences of complete recovery by a miracle worked upon Dr. Dogge after more than 800 attacks of spasms as stated, which were of supposed traumatic causation. Witness quit case when asked to sign demand on railway company for money for injuries which he believed never existed. Any subsequent atrophy that may have occurred was not from paralysis of cerebral origin, but was solely due to disuse of limb.

The two nurses corroborated Dr. Cothran's testimony, and each testified for herself that they, on different occasions, had seen plaintiff (Dr. Dogge) raise his supposed paralyzed arm, and place his left hand back of his head independently of the right arm and without any assistance whatever.

Dr. J. F. Burns—Was present in consultation with other physicians named, and became satisfied that there was nothing the matter with Dr. Dogge, and that his symptoms were feigned. Was present at tests made by Dr. Southworth and others, and concurred therein. Dr. Burns also corroborated the testimony of Dr. Cothran. He was not permitted, under the ruling of the court, to testify to observations he had made by himself at times when not in consultation.

Dr. Thomas Keeley testified that he was present in consultation, and that there was nothing the matter with Dr. Dogge.

Dr. M. A. Southworth corroborated Dr. Cothran's testimony. Was positive that plaintiff had been malingering. Had seen case from 5 days to a week after alleged accident. There existed no evidence on Dr. Dogge's head that he had been hit; no abrasion, swelling, discoloration or marks of any description. In second consultation, witness made careful tests of plaintiff's hearing, and found it unimpaired. "He was not deaf in his right ear," as claimed, and I so declared to all present at the time. Patellar reflexes normal, left not exaggerated; plantar's normal; pupils normal; no signs of involuntary evacuations; no hemianopsia; no paralysis of face, tongue or left side. Witness stated that he quickly raised and dropped Dr. Dogge's left leg several times, then instead of dropping, unexpectedly held it up, when there was an evident downward pressure, consciously or unconsciously, made by patient. Then he unexpectedly let it drop, when it did not fall like a paralyzed leg, but in a bent position on the bed. If plaintiff had been struck by a rock of character shown, and in manner claimed, it would have produced laceration of the scalp. In cerebral paralysis a person does not "drag his leg or foot," as Dr. Dogge is stated to have done, but elevates the pelvis of the affected side and swings the leg in a circle, thus (illustrating); neither does he, as a rule, use a crutch on the paralyzed side, as was the case with Dr. Dogge. "If the spot you describe as where Dr. Dogge was hit, and under excitement gets red and tender and swells up and then gets well and thus does again in a week and so continues to act again and again, and all without any rupture of the skin or any suppuration (as stated to be the case with Dr. Dogge), it is a stigma of hysteria, and the man who has such a spot has hysteria." "I hold it to be an unquestionable fact that no ordinary man could be subjected to the emotional and mental strain to which Dr. Dogge was subjected for day after day, and night after night, and week after week, in his efforts to deceive his medical attendants, his nurses and some others without the development of more or less profound hysteria."

Defendant laid stress upon the point that a motive for plaintiff's feigning existed in the fact that he not only held the accident policy whereby he would receive $100.00 a week, but was also a beneficiary in one or more fraternal insurance organizations which paid weekly benefits, besides expecting to obtain a lump sum for damages from the railroad company.

Reference is here made of some peculiar points in evidence given for the plaintiff:

First—"Ecchymosis" and "black and blue" occurred in from 5 to 10 seconds.

Second—Plaintiff's statement of unconscious period of 7 months. Disproved by his own medical witnesses and his wife.

Third—Character of convulsions. Eight hundred attacks of supposed traumatic origin. Sensory and motor paralysis of cerebral origin. Complete recovery after.

Fourth—Pupil of right eye temporarily dilated, 12 to 24 hours. Exaggeration of reflexes; patellar both sides; plantar, acute in right, absent in left.

Fifth—Blood clots, solidified, shift their positions and break up into fragments. Loss of sensation in one side (left) and other existing phenomena due to blood clot at base of brain.

Sixth—That spot where injury is said to have been received still becomes painful, tumified, red, and disappears to recur again.

Plaintiff's medical witnesses also *showed* "that convulsions very properly appeared on the opposite to the paralyzed side," and are in such cases especially kept on tap for that purpose.

In conclusion, the following quotations from "Butler, Diagnostics of Internal Medicine," are here appended:

"Cerebral paralysis—Hemiplegia, partial or total;

the most characteristic distribution of this type of paralysis. The paralyzed muscles are *spastic*, and contractures may develop. The reflexes are exaggerated. The reaction of the muscles to electric stimulation is *normal*. Atrophy of the muscles, if it occurs, is slight, and in the large majority of cases is due simply to disuse.

"As the peripheral nerves do not degenerate unless they or their cell bodies (in the spinal cord) are diseased, * * * if the reactions of degeneration (under electrical stimuli) are found he can exclude disease of the brain, and can affirm disease of the anterior horns and roots of the peripheral nerves."

IS THE HEALTH OF LOS ANGELES MENACED BY PULMONARY TUBERCULOSIS?*

By GEORGE H. KRESS, M. D., Los Angeles, Cal.

A QUESTION such as the above becomes a source of intermittent thought and discussion in all communities to which, because of their climates, a large number of consumptives from other portions of the country are attracted. A discussiou of the topic is allowable, because it is the duty of every state to protect its citizens from avoidable injury and disease. If, therefore, the deaths in Los Angeles from pulmonary tuberculosis be in excess of the average mortality rate elsewhere for that disease, it is proper that an inquiry iuto the causes of this excessive mortality be made, and measures considered which would neutralize auy danger to healthy citizeus which might arise therefrom.

Because Southern California is known to possess an equable year-round climate with maximum amounts of pure air, sunshine and pleasant environment, scores of persons not physically able to cope with the rigorous climate of eastern and northern states are attracted hither; and because Los Angeles, the metropolis of this section, is the terminus of several transcontinental railroads, it becomes the natural distributing center for the majority of such persons. Many of these choose it as their abiding place because of its greater opportunities for employment and pleasure.

During 1904 the total uumber of deaths in Los Angeles from all forms of tuberculosis was 627, of which number 544 were credited to pulmonary tuberculosis; but this latter number would be increased to 592, if we added 33 deaths included under general tuberculosis, and 15 deaths from phthisis.

Estimating the average population of Los Angeles for 1904 to have been 170,000, its death rate from pulmonary tuberculosis per 100,000 inhabitants would have been 348.2. In the census year, 1900, its rate was 352.8, a figure which placed Los Angeles second highest as regards tuberculosis mortality, in a list of 129 registratiou cities of the United States. San Antonio, Texas, had the highest rate (444.0 per 100,000 population), and Los Angeles was followed by Pueblo, Colorado (327.2 per 100,000), and Denver (321.7 per 100,000).

By way of contrast, the rate in New York was 237.1; Boston, 233.4; Baltimore, 178.0; Memphis, 169.9; Bay City, Michigan, 69.1; Omaha, 101.0; Portland, 105.4; San Francisco, 269.5, and that of Los Augeles, as before stated, 352.8.

These figures for cities, many of which have less favorable climatic and much worse industrial and sociological conditions, show how excessive is the mortality rate from consumption in Los Angeles. The reason for this large number of deaths is due to the fact that so many consumptives come to Los Angeles in the last stages of the disease, at a time when any other termination than death is almost out of the question.

For the census year 1900 the average mortality rate from consumption for the registration area of the Uuited States was 187.3 per 100,000 population, so that the Los Angeles rate of 352.6 was almost twice that of the registration area average, and about five times the rate of Bay City, Michigan. The conditions of the Michigan city are probably in no way superior to those of Los Angeles, yet the mortality rate at the latter place is about five times as great.

In spite of this high tuberculosis mortality, the general death rate of Los Angeles for the year 1904, based on 2975 deaths to 170,000 population, was 17.5 per 1000, whereas the average rate for the registration area of the United States in the census year 1900 was 17.8. If Los Angeles had a tuberculosis mortality not in excess of the average of the registration area (187.3 per 100,000 population) its general death rate would be 15.9 deaths per 1000 population, and if its tuberculosis death rate were as low as that of Bay City, Michigan—which it would no doubt be, were it not for the influx of consumptives from other states—its general death rate would be 14.79 per 1000 inhabitants, figures which are more in accordance with what one would naturally expect to find.

Granted, then, that the deaths in Los Angeles from pulmonary tuberculosis are far in excess of what they ought to be, the question arises: Is the high mortality from tuberculosis a menace to the health of Los Angeles?

In order to answer this question, it was necessary to analyze the death certificates from this disease for the year 1904, but this paper presents only such figures as have a direct bearing on the question under consideration. We know that there were virtually 600 deaths from consumption in Los Angeles last year. How many living consumptives resided in the city we do uot kuow. The phenomenal growth of the city during the last 15 years (the population is increasing at the present time in annual bounds of 15,000), and the fact that the consumptives belong to the so-called transient portion of the population, make it a difficult task to obtain accurate figures as to the exact amount of tuberculosis morbidity in Los Angeles. In easteru cities of slow growth, where it may be assumed that consumptives have contracted the disease from fellow citizens, the morbidity is sometimes calculated as being 5 times the mortality, this multiple being used on the basis of an average course of 5 years in this disease. Such a method would suggest that there were in Los Angeles during the last year some 3000 consumptives. Just how near or far from the truth such a figure may be it is impossible to say.

The significant fact about the 592 deaths from consumption in Los Angeles in 1904, from the standpoint of menace to the city's health, is this, that 118 of those deaths took place in the County Hospital, and that 16 persons became subjects of coroner's inquest, because they died without a physician being in attendance. In other words, 134, or almost 25%, died as charity patients in the County Hospital. When the dread of going to a public hospital is taken into accomt, it may be safely assumed that between 25% and 50% of all consumptives in Los Angeles are without those material means which would purchase for them the food, environment and medical attention so necessary to the cure of this disease. This means, then, that these consumptives must seek, of necessity, the cheapest lodging and eating houses of the city; means further, that they must congregate in just those places where the largest number of predisposed persons are gathered in the most unhygienic surroundings.

It is not the purpose of this paper to enter into a detailed account of the lodging house conditions in Los Angeles, but it is not exaggeration to say that they are bad. The present ordinauces governing them are insufficient, and in his last annual report the health officer, Dr. L. M. Powers, called attention to the necessity of better laws in regard thereto. Los Angeles constantly has thousands of transients within her domain, but of the almost 1000 lodging houses, hardly more than a bare hundred are licensed. Under the present ordinances, it is utterly out of the ques-

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

tion for the health department to insist upon observance of proper amount of air space per occupant, ventilation, clean bed clothing, accessible and clean lavatories, and so on.

In the very cheapest of the lodging houses many of these penniless consumptives congregate. With a blind faith in the healing power of the climate, they sit about, ofttimes spending most of their time indoors, ignorantly or willfully spitting and hawking their infectious sputum about them, a menace to their fellow lodgers at the time, as well as to subsequent occupants of their beds and rooms. To contend that consumptives under such conditions, in the late stages of the disease, when the sputum is especially dangerous, are not a menace to others, is to draw a conclusion from premises, the exact opposite of those which we have been trying to establish.

Granted, then, that consumptives are a source of danger to the city's health, because of the large number of them who take up their residence in Los Angeles for climatic reasons, but more especially because of the large proportion of these who die as charity patients—an indication of their penniless condition and the character of the lodging and eating houses which they had previously patronized, the question comes up: How, without being inhuman or unkind to these victims of this widespread disease, can we neutralize in Los Angeles the dangers that menace those who are not afflicted with tuberculosis?

Before suggesting remedies, it may be well to review briefly the measures at present on our statute books which have a bearing on this subject:

1st. Lodging Houses: There is an ordinance which specifies that there shall be at least 500 cubic feet of air space for each occupant of a lodging house, and that the room shall have proper ventilation. This ordinance is a dead letter, because of the difficulty in its enforcement.

2nd. Anti-Spitting Ordinance: Another ordinance forbids spitting on pavements and in public buildings. This is of value mostly from the educational standpoint, little attempt being made to arrest or convict for violation of the same.

3rd. Voluntary Notification: The board of health has classed tuberculosis with scarlet fever and other contagious diseases, but the rule in this particular is generally disregarded by physicians. Thus, with a death rate from consumption last year of 579, only 206 living cases of tuberculosis were reported to the health officer, and of these, 167 were learned through the positive results of 434 sputum examinations; so that virtually only 39 other cases were reported.

4th. Free Sputum Examinations: The health office not only makes free sputum examinations, but supplies special sputum boxes. This privilege should be much more used than it is.

5th. A law against admitting consumptives to hospitals: The most absurd law of all is one passed in May, 1904, whereby hospitals are forbidden to receive tuberculosis patients, the County Hospital and the Barlow Sanatorium being alone excepted. This evidence of phthsiophobia had its origin in the blind fear of some residents living near the Kaspare Kohn Hospital, and their protest against the admission by that hospital of consumptive patients, led the city council to pass a statute, forbidding all hospitals to receive consumptives, although the inconsistency of such action against institutions where hygienic rules were observed, while lodging houses, with their violation of hygienic and sanitary requirements, remained exempt, was pointed out. Such a law as this was not needed, nor does it mitigate in any way the dangers from infection.

There is no need of treating consumptives as if they were outcasts or lepers. When the excreta are properly taken care of and an hygienic environment insisted upon, there is little danger to fellow citizens or lodgers. We cannot quarantine consumptives or prevent them from entering our city. To attempt to do so would not only be impracticable, but inhuman. It is a curious fact that the agitation in recent years of the tuberculosis question by phthisiologists has resulted in a large number of half-truths being passed from mouth to mouth among the laity, so that where before there was indifference to the disease, founded upon a belief in its heredity, there is now developing in some places a fear, built on the knowledge of its infectious nature, that expresses itself in needless dread and persecution of consumptives.

There is no necessity for such an attitude. The thing to do is to use the presence of these consumptives as a pretext for abolishing the filthy and unsanitary lodging and eating houses which are breeding and harboring places not only of tuberculosis, but of all contagious and filth diseases.

What other measures, then, are needed in Los Angeles to reduce the danger of infection from consumption to a minimum?

First and foremost, compulsory notification. By this is not meant compulsory notification as applied to small-pox or scarlet fever. For tuberculosis, a placard should never be placed on the house. If the personal physician of the consumptive stated that the patient was in a position to observe proper hygienic rules, nothing else would be required, other than that the attending physician place in the patient's hands literature telling how the sputum was to be disposed of and how reinfection of self, and infection of others, was to be avoided. If the patient moved to a different place, or died, the health department should be notified so that the premises might be fumigated.

When, however, the physician stated that the patient's environment was not satisfactory, then a physician from the health department should visit the patient and make an inspection of the premises, and report thereon. Or, if the health department was notified of the case through the Associated Charities or similar source, then the visiting physician and nurse should report on the hygienic and sanitary conditions of the patient's environment, the patient and friends being instructed verbally and by literature as to proper precautions, and if deemed necessary, subsequent visits could be made to see if these instructions had been carried out.

In this way, a register of all living tuberculosis patients could be kept—for the use of the health department only—and patients living under conditions where they would be a source of danger to others could be made to improve them, or refusing, could be transferred to the county or other hospital, where they would have less chance to infect others. Such a system of compulsory notification has been tried by Dr. Hermann B. Biggs of New York with excellent results. Every effort is made to respect the feelings of patients and friends, all communication being of a personal or private nature, except where unhygienic or unsanitary conditions make the environment a menace to others, when more forcible measures would be necessary.

Second, a new lodging house ordinance. Closely connected with this question of tuberculosis is the condition of the lodging houses of Los Angeles. Tenement districts, in the usual acceptation of that term, we have little of, and, fortunately, our mild climate permits an out-door life the year round, so that there is little danger from an in-door life in dingy and unhygienic rooms. If our poor consumptives could be induced to spend their time out of doors, the danger from their sputum might be in part diminished by the germicidal action of the sun. Unfortunately these patients, often underfed, poorly clothed and miserable generally from the distressing symptoms of the advanced stages of the disease, shun the sunlight, shun one of the very things essential to recovery.

In all cities having a large floating population of poor persons, there are to be found cheap lodging and eating houses—Los Angeles being no exception to the rule—and cheap lodging houses nearly always mean filthy bed clothing, faulty lavatories and overcrowding. Knowing the infectious nature of tuberculosis, it requires no stretch of the imagination to conceive how such places could become foci of infection for others. But even if this were not the case, common decency and pride should lead us to insist that the

fundamental principles of hygiene and sanitation be complied with in such places.

In his last annual report, the health officer of Los Angeles suggested the need of an ordinance which would place the licensing of lodging houses in charge of the health department, on the same basis as dairies. Violation of the provisions of the ordinance, as to the amount of air space per occupant, lack of ventilation, filthy bed clothing, general uncleanliness to be met by revocation of the license, if orders to improve the conditions complained of, were ignored. Such an ordinance is needed, and should be passed at an early date.

Third, municipal dispensary. The city health department, County Hospital and Associated Charities, between them, virtually maintain an establishment of such purpose. Whether a separate room, regular hours and staff would improve the work, is a question also worthy of consideration.

Fourth, hospitals. Sanatoria for incipient cases and hospitals for advanced cases are sorely needed. At the present time, incipient cases are not admitted to the County Hospital, except during exacerbations of the disease, and the only facilities for advanced patients are two wards set apart for such cases. It is to be regretted that the movement for a state sanatorium failed to receive an appropriation from the late legislature. Two years hence this great need should be made a reality.

In presenting above certain phases of the Los Angeles tuberculosis question, there has been no desire to encourage phthisiophobia. On the contrary, the purpose of the paper is just the opposite, viz., to call attention to the manner in which pulmonary tuberculosis is a menace to the health of Los Angeles and to indicate some measures by means of which those dangers could be neutralized or mitigated. When such measures are instituted, there will be little occasion for fear from the disease, and the lot of the unfortunate victims of pulmonary tuberculosis will be made more hopeful and more pleasant.

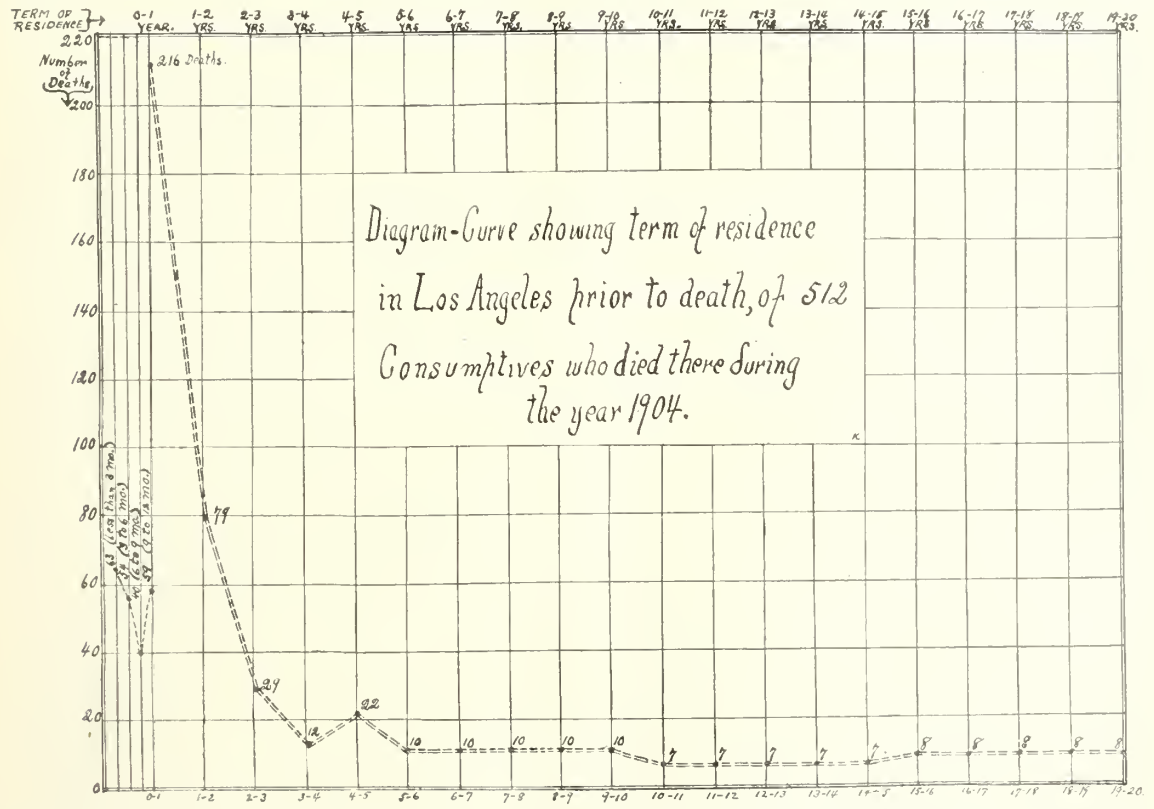
For the benefit, however, of any who would conclude, from what has been said, that Los Angeles is plague-ridden with consumptives, and that to reside there is synonymous with infection from tuberculosis, a few figures showing the fallacy of such a conclusion are here appended.

The freedom of Los Angeles from crowded industrial and tenement sections, the tendency to lead an out-of-door life because of the mild climate, the great amount of sunlight and its germicidal action on infectious excreta exposed to its rays, have already been mentioned as factors which mitigate, in part, much of the danger from so large a number of consumptives.

By nativity, but 14 of the 592 deceased consumptives of 1904 could be credited to Los Angeles, and only 54 to the Pacific slope states (California, Washington and Oregon), outside of Los Angeles. To the remaining states of the union were credited 216 persons (most of these coming from Illinois, Missouri, New York, Ohio and Pennsylvania), and the foreign born included 192 persons.

By nativity, then, the percentage of deaths belonging to Los Angeles is only 2.41%, and the Pacific coast (exclusive of Los Angeles) percentage is 9.32% of the total number of consumptives dying in the year 1904.

The limited term of residence in Los Angeles of many of these deceased consumptives is also worthy of notice. Thus: 63 resided in Los Angeles less than 1 month; 54, less than 3 months; 40, less than 6 months; 59, less than 1 year; 79, less than 2 years; 29, less than 3 years; 12, less than 4 years; 22, less than 5 years; 48, less than 10 years; 35, less than 15 years; 41, less than 20 years; 30, less than 39 years, and for 58 the term of residence was unknown.



Whether the 85 deceased consumptives who resided here longer than a period of five years prior to death acquired their disease here or elsewhere it is impossible to say.

However, no matter what may have been the case in such regard, the truth remains that there is an unusually large annual mortality from pulmonary tuberculosis in Los Angeles, and that many of these diseased persons become charity patients before death. Consequently it becomes our duty to bring into existence such laws as will rob their stay among us of any danger which might accrue to the health of other citizens.

THE ADAMS-STOKES SYNDROME, WITH REPORT OF TWO CASES.*

By H. S. GORDON, M. D., Santa Ana.

THE Adams-Stokes syndrome, according to early writers, consists of bradycardia, abnormal respiration and loss of consciousness. It was first observed by Adams in 1827, subsequently by Stokes in 1854. In 1893 Huchard gave it the name of these two clinicians.

The constant symptom is bradycardia. Around this may be grouped symptoms of various kinds, according to the particular case observed, and as various writers claim, we may have irregular, stertorous or Cheyne-Stokes respiration, dizziness or headache, cardiac asthma, epileptic convulsions, temporary hemiplegia and dilated and immovable pupils, it appears to me necessary to enlarge the scope of the original definition. While most patients affected with the syndrome are of advanced age, it has been observed in infancy and early adult life, hence we may assume that it can occur at any period of life.

It usually follows one of three courses. 1st. In advanced life the attack may come on with violent symptoms, rapidly succeeding each other and terminate fatally in a very short time. 2d. The attacks may be less severe, recurring for weeks or months and finally cease altogether. 3d. The attacks may occur at longer intervals for years, and at last terminate fatally. Some patients have bradycardia before the attacks occur, and when the attacks do occur the pulse rate sinks still lower and rises again when the attack ceases. In other cases the pulse rate may be normal between the attacks. The pulse during an attack may be irregular, unequal or intermittent, although I am inclined to believe that in some of the cases of the latter the intermission is due to the abortive contraction of the heart. As to the origin of this condition I am of the opinion that it is either cardiac or nervous in all cases, and we can only differentiate between them by affirming one and excluding one or the other sources of the disease by a careful physical examination.

Osler arranges these cases in three categories, 1st, postfebrile, occurring after or more rarely during the course of an acute infection; 2d, neurotic; 3d, arteriosclerotic.

That the syndrome may be present in different conditions is evident from the cases reported by various writers and from which I beg leave to quote.

In Adams' case the autopsy showed a fatty heart, atrophy of the heart muscle and dilation of the right ventricle. In Stokes' case he considered fatty heart the cause. Halburton reported a case in 1841 which he considered important from the fact that he considered the medulla oblongata the seat of the disease as an injury to the neck preceded the attack.

Neuberger and Edinger reported an interesting case in which they demonstrated that a nerve lesion may produce the syndrome. This patient, a man aged 46 years, had repeated attacks of unconsciousness during or immediately after defecation, with a pulse rate of 18. At the autopsy the heart, lungs and abdominal viscera were normal, there was almost complete absence of the right half of the cerebellum. The network of fibers in the right vagus nucleus was almost absent, and in the region of the decussation of the pyramids was a varix which compressed the upper roots of the accessorious. Bassoe thinks that this case supports the view that the cardio-inhibitory fibres in the vagus are derived from the accessorious, as the attacks, he thinks, were due to the pressure on the accessorious roots when the varix became enlarged during defecation.

Luce in 1902 reported a case of bradycardia, in which the pulse rate was 18, accompanied by attacks of loss of consciousness, during which there was increased bradycardia. The autopsy revealed a round-celled sarcoma in the upper third of the ventricular septum, moderate sclerosis of the aorta and a well-marked degeneration of both pneumogastric nerves outside the medulla.

Krause reports a case in which interstitial nephritis was the only pathological condition found at the autopsy, and maintains that the syndrome may be a result of uremia. Devoe holds the same view.

Bassoe in 1903 gave a very interesting report of a case in which the autopsy excluded any lesion of the medulla, but in which there was a well-defined fibrosis of the ventricular septum. Rogers in 1856, and Peacock in 1864, both report cases in which there was cicitrization of the ventricular septum, thus supporting the views of Luce.

In May, 1904, I was called to see L., male, aged 43, married, gardener, who was suffering from attacks of unconsciousness, accompanied by difficult breathing. His pulse was 18, but full. Family history negative; had enjoyed good health, except 5 years previous had had several attacks of loss of consciousness, but I could obtain no history of the condition of the heart or circulation. Auscultation revealed mitral regurgitation. Arcus senilus was very marked for one of his age. There was some sclerosis of the right radial artery. During this attack, which lasted about one week, I did not have an opportunity to witness an attack of loss of consciousness. In about 10 days from the beginning of the attack he returned to his work as gardener. At this time his pulse rate was 40. I saw no more of him until November, 1904, when I was again called to see him, and found the attacks of loss of consciousness more frequent, and there was evidence of disturbance of the digestive organs manifested by vomiting, coated tongue and foul breath. The pulse rate at my first visit was 18, and rather weak. For 4 days the symptoms gradually grew worse, the pulse rate going as low as 12, where it remained for 48 hours. During this period the attacks of loss of consciousness became quite frequent, 60 distinct attacks occurring between 8:00 A. M. and 6:00 P. M. of one day. These attacks were preceded by labored, almost stertorous breathing, twitching of the muscles of the face, the eyeballs would roll upward, and he would lose consciousness, and remain in this condition from 5 to 10 seconds, when he would quickly recover, and in a few seconds be able to resume conversation. These frequent attacks lasted about 48 hours, when they gradually grew less frequent, and in about 15 days from the initial attack they ceased. During the first 10 days he was slightly delirious, and at one time was in a semi-comatose condition for 36 hours. Now in this case there was evidence of functional disturbance of the digestive organs preceding and during the attack. Examination of the urine was negative. After the twelfth day of the attack the pulse rose to 24, where it remained for a week, then it gradually increased until it reached 40, and on February 1, 1905, he returned to his work. I have no doubt that in this case there is some lesion of the ventricular septum, with perhaps retrogressive degeneration of the pneumogastric nerve.

The second case was one I had hoped to be able to report through the courtesy of Dr. Herbert, but on searching for his records he found they had been destroyed. This patient was presented to the Orange County Medical Society by Dr. Herbert in September, 1904. He had a pulse rate of 24, and had attacks of loss of consciousness. He stated that he had frequent attacks of asthma, which I have no doubt was cardiac asthma. He died in one of the epileptiform attacks in November, 1904. There was no autopsy.

The history of the case quoted would indicate that the Adams-Stokes syndrome is not a clinical entity, but may occur in any one of several pathological conditions of the heart, vagi or medulla; that arteriosclerosis is not an essential condition for its occurrence; that its cause is acute, subacute or chronic; that it may occur at any age, and is particularly frequent in organic disease of the ventricular septum; that bradycardia is the fundamental feature of the syndrome, and the nervous symptoms vary according to the susceptibility of the nerve centers to the circulatory disturbance caused by bradycardia.

The treatment must be adapted to each individual case. Osler tells us that in the aged only hygienic measures should be attempted. In my case after trying various remedies without any perceptible benefit I began the use of digitalis, and while digitalis was theoretically contra-indicated, yet the patient showed marked improvement at once; whether this was from the action of the digitalis or a coincidence I am unable to say.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

Smoker to Surgical Association.

The San Francisco County Medical Society will give a smoker to the American Surgical Association at the St. Francis Hotel on the evening of Thursday, July 6th.

THE USE OF HYOSCINE HYDROBROMATE IN THE TREATMENT OF THE MORPHINE HABIT, WITH REPORT OF CASES.*

By R. E. BERING, M. D., Tulare.

WHEN we read the various text-books on the treatment of the morphine habit, written by some of the ablest men in the country, and endeavor to carry out the plan of treatment suggested, it is no wonder so few physicians in general practice ever undertake to free their unfortunate patients from this dreaded curse, with all its accompanying nervous manifestations, collapse, oftentimes death, and suffering that no words can describe.

Knowing that I have something better to offer to the medical profession is my reason for presenting this paper to-day, with the hope that it will meet with a thorough discussion at your hands, thereby awakening an interest in a line of work that is now practically conceded to the charlatan and quack; and yet, gentlemen, in the use of hyoscine hydrobromate in the plan of treatment that I shall outline, any physician can free his patient of this disease in a very short time without any danger at all; no cardiac failure, cramps, vomiting or any of the many symptoms due to the immediate withdrawal of the drug; it is truly surprising in what good condition the patients come from under the treatment.

In treating a patient, it is absolutely essential to have him in a sanitarium, where he can be seen often as well as to keep him from the sympathetic influence of home and friends, thus awakening a self-reliance that is very needful. It is better to treat your patient in a room as free of furniture as possible, as the hyoscine causes all kinds of hallucinations. The room should be darkened, as the light would cause serious and painful eye troubles. Do not undertake to treat a patient unless you have thoroughly trained nurses, in whom you have the utmost confidence, as *the patient must not be left alone a moment during the administration of the hyoscine*, nor for the first 24 hours after the last dose of hyoscine has been given.

Before commencing treatment, first ascertain the condition of the heart, lungs and kidneys; and yet patients suffering from heart and kidney lesions can, with proper care, be successfully treated. The night before starting the hyoscine, a vapor bath is given for a sufficiently long period to secure free action of the skin. I also endeavor to secure free elimination of all toxic material from the system, which, owing to the almost paralyzed condition of the muscular and glandular structure, is sometimes difficult of accomplishment, and requires heroic treatment and medication. In my experience, I have found nothing better than strychnine sulphate, in doses ranging from 1-32 to 1-8 grain every 2 hours for 3 or 4 doses, with calomel, podophylum, ipecac, etc. It is surprising what elimination takes place under the full stimulus of the above, followed in 6 or 8 hours with a saline purgative. This action is usually secured before commencing the hyoscine, while the patient is still supported by his accustomed drug. During this eliminative course, light diet should be given, the better to get this result, which, when secured, prevents all nausea, cramps, pains, and relieves the portal system sufficiently to compensate the heart for the lack of its accustomed stimulus, thus preventing the grave danger of cardiac failure.

Hyoscine is then given in doses ranging from 1-100 grain every hour to 1-400 grain every 4 hours, until the full physiological action is secured, which is a slowing of the pulse from 10 to 15 beats per minute, flushing of the face, dilated pupils, dryness of the throat, a mild muttering delirium, picking at imaginary objects and fanciful hallucinations. It is these symptoms, in a modified form, that are needed, and *from that time on, just enough hyoscine is given to keep the patient in this condition* for a period ranging from 30 to 40 hours. Usually at the end of 30 hours I allow the patient to come from under the influence of the hyoscine and ascertain his feeling, and if free from pain and desire for the drug, no more hyoscine is given; but if the reverse is the case, it is then resumed for another 12 or 24 hours, at the end of which time the patient will invariably tell you he has no desire for his accustomed drug, and from this time on the treatment consists of recuperating the patient. After the second or third day the appetite is something wonderful, 5 or 6 meals a day being called for. Frequently after the first dose the patient will drop off to sleep for several hours, during which time I give no hyoscine, but resume it upon awakening. I have had some patients get very wildly delirious before the hyoscine took effect, necessitating the giving of 1-100 grain every half hour until quiet was secured.

Should the patient at any time show any signs of pains, it is an indication of the necessity for more hyoscine, as freedom from pain is all desirable, and can be easily prevented by keeping up the action of the hyoscine. Should the delirium become too violent, it is due to an excess of hyoscine, and it is better to discontinue it until the patient is quite free from its influence, and then resume it in smaller doses with longer intervals between. Usually patients come rapidly from under the influence of the drug, and 12 hours from the administration are quite rational and in good spirits. The action of hyoscine is not the same in any 2 patients, consequently needs *close watching;* while it is *perfectly safe when carefully used*, it is a *powerful agent for harm when not so used*. If free elimination is secured before commencing the use of hyoscine, it is seldom that a cardiac stimulant will ever become necessary; should it become necessary, however, spartein sulphate in doses from ⅛ to ¼ grain is all that is needed, repeating it every 4 to 6 hours, as indicated.

The following cases will show the advantage of securing free elimination before commencing treatment, in comparison with those cases where such was not secured.

Patient J. C. White, male, age 38, came to the sanitarium with the morphine and cocaine habit of 18 years, using it 8 to 10 times a day, hypodermatically. Patient greatly emaciated and nervous; purgative capsule given at 4, 6, 8 and 10 P. M.; 11 P. M., vapor bath given, when patient took the drug for the last time. April 8th, 7 A. M., bottle of citrate of magnesia given; 7:20, first dose of hyoscine administered, 1-200 gr.; patient very nervous; pulse, 78; 7:50, sleeping; 8:20, hyoscine, 1-200 gr., sneezing violently; 11 A. M., sleeping; perspiring freely; 11:10, hyoscine, 1-200 gr., and spartine ¼ gr.; slept until 12:25; bowels not acting freely, 3 oz. castor oil given; 1 P. M., pulse 58, full and strong; skin moist; resting easy; 2:15 P. M., hyoscine, 1-200 gr.; 3 P. M., hyoscine, 1-200 gr.; patient restless and nervous, nauseated; 3:30, 1-100 gr. hyoscine; 3:30 P. M., yawning, delirious, picking at the clothes and muttering; fully under influence; 5 P. M., pulse 80; a liquid nutritive preparation, 1 oz.; 6 P. M., hyoscine, 1-200 gr.; sneezing; 7:10 P. M., sleeping; 8 P. M., pulse 58; restless; complaining of pain in knees; hyoscine 1-200 gr. given, perspiring freely; 10:30 sweating ceased, hyoscine, 1-200 gr.; 12:05 A. M., hyoscine 1-200 gr.; 1 A. M., hyoscine 1-200 gr.; patient complaining of pain in knees; 3:30 A. M., hyoscine 1-200 gr. and spartine sulphate ⅛ gr; 4 A. M., hyoscine 1-200 gr.; pulse good; patient nauseated and retching; at 6:30 A. M., dozing; 7 A. M., 4 oz. citrate of magnesia; patient quite comfortable; 9 A. M., hyoscine 1-200 gr.; 10:15 A. M., 1-200 gr.; 11:00 A. M., 1-200 gr.; 12:00 M., 1 drachm hyposulphite of soda; 2 P. M., sneezing; 3:15 P. M., hyoscine 1-200 gr.; patient drank a cup of tea and milk; 6 P. M., hyoscine 1-200 gr.; patient spent a fair night; fourth day, 9 A. M., pulse 58; hyoscine 1-200 gr.; 3:15 P. M., hyoscine 1-200 gr. From then on the patient made an uninterrupted recovery.

Case 2.—Ed. McG., age 44, weight 190 pounds, used morphine hypodermatically for 20 years, average daily quantity 16 grains. April 11th, 4, 6, 8 and 10 P. M., was given capsules, each containing 2½ gr. calomel, powdered cascara 2½ gr., ipecac ¼ gr., strychnine sulph. 1-24; 9 P. M., vapor bath given, followed by alcohol rub; 10 P. M., patient took his last hypodermic of morphine; 5 A. M. of morning of 12th (no bowel movement), bottle of citrate of magnesia was given; 7 A. M., 1-200 gr. hyoscine, strychnia 1-30 gr., patient nervous; 7:30 A. M., 3 oz. castor oil; 8:30 A. M., hyoscine 1-200 gr.; 8:45 A. M., hyoscine 1-200 gr.; 9 A. M., hyoscine 1-200 gr.; patient comfortable; slept until 10:30 A. M., when 1-200 gr. hyoscine was given; complains of aching all over body; high rectal enema of glycerine and ox gall given, with slight bowel movement; 10:55 A. M., hyoscine 1-200 gr.;

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11:15 A. M., hyoscine 1-200 gr., very restless; 11:45 A. M., hyoscine 1-200 gr.; 12:15 P. M., hyoscine 1-100 gr., and 1-100 each half hour thereafter for 8 doses, during which time patient hysterical, very nervous, twitching of the muscles, impossible to remain quiet, crying out, making considerable noise; very violent, had to be restrained in bed; 1:30 P. M., Epsom salt 1 oz.; pulse 104; respiration 48, caused from violent exertion to free himself; 3:40 P. M., Epsom salts 1 oz., strychnine 1-20; 4:45 P. M., pulse 80, good volume, beginning to get quiet, suffering no pain; Epsom salts 4 drachms; 10 P. M., dozing; 5:35 A. M., bowels acted slightly; 6:30 A. M., vomited green bilious matter; 7:20 A. M., patient quite rational, relieved of restraint, very comfortable; no more hyoscine was given until 12:30 A. M., when 1-100 gr. was given, repeated in one hour, as patient began to get very nervous, tossing from side to side of bed; 2:30 A. M., pulse 70, very good; hyoscine 1-200 gr., which carried patient comfortably until 9:45 A. M. morning of the 13th; has no desire for his drug; 10 A. M., 1-200 gr.; 12:10 P. M., vomited green fluid, mueus and bile; 2 P. M., hyoscine 1-200 gr., strychnine 1-20; bowels moved thoroughly; 6 P. M., hyoscine 1-400 gr.; 12 midnight, hyoscine 1-400 gr.; patient resting easy; pulse good; bowels not having acted satisfactorily, capsules as at first, were repeated every 2 hours, followed with salts.

This case is a good illustration of the difficulty met with in securing free elimination. Within 30 hours this patient took 20 gr. calomel, 20 gr. powdered cascara, 2 gr. ipecac, $\frac{1}{4}$ gr. strychnine sulph., 3 oz. castor oil, 3 oz. Epsom salts, 3 drachms sodium hyposulphite by mouth, rectal enema of glycerine and ox gall several times, besides several hypodermic injections of strychnine.

Case 3.—Morphine habitue, using 20 gr. morphine and 20 gr. cocaine daily for a period of years, was given 65 1-100 gr. doses of hyoscine during a period of two days and a half. He was discharged cured, having no desire for either drug. Pulse remained good during treatment.

Case 4.—Patient using a large quantity of morphine and cocaine daily, was treated for 3 days and discharged cured.

In a communication recently received from Dr. Lott, he mentions that he has used this treatment in more than 200 cases, without any evidence of danger or unnecessary anxiety during the treatment. In the *Therapeutic Gazette*, January, 1902, Hare has an editorial commending the use of hyoscine in these cases. In the *Medical News*, November 29, 1902, Rosenberg reports a morphine habitue of 11 years' standing who used from 30 to 60 grains daily, and, notwithstanding he had serious kidney trouble, he was given 1-100 grain hyoscine hourly for 108 hours. Eleven months after the treatment he reports the patient as cured. Hare, in *Medical News*, June 7, 1902, says:

First, a patient can take massive doses for days at a time, as much as $\frac{1}{4}$ grain each day, hypodermatically, with no evil effect. Second, they suffer very slightly, if at all, from the immediate withdrawal of the morphine; and third, and more surprising, a desire for the drug is largely, if not entirely, dissipated after a few days. His results were so good, he says, that he will have no hesitation in applying it to others.

Howard C. Russell, *New York Medical Record*, November 29, 1902, says that during the whole time the patient was under the treatment he suffered no well defined pain; in fact, there was very little evidence at any time that he was even uncomfortable. In spite of the well known tendency of these patients to relapse, he thinks this man is permanently cured, as he seems to be entirely rid of the desire for the drug, and devoutly thankful for his escape. This patient was using 60 grains of morphine daily for a period of 5 years.

S. Ormand Goldan reports in *New York Medical Journal*, January 3, 1903, as follows: In the proper use of hyoscine in morphine habitnation, we possess a safe, certain and painless method of treatment.

W. E. Nichols, in *Wisconsin Medical Drug Journal*, speaking about the drug habits, suggests as a cure for the alcohol, opium and cocaine habits the careful use of hyoscine hydrobromate.

Having but a short time in which to read this paper, it necessarily must be brief, and cannot do the subject justice in so short a time. It is a subject of vast possibilities and interest, though theoretically so little understood. I assure you, from my knowledge gained imperically, there is nothing in the materia medica that will do the drug-craved patient the good that can be accomplished with the careful and intelligent use of hyoscine hydrobromate.

DISCUSSION.

Dr. Geo. L. Cole, Los Angeles.—There is an element entering into the treatment of the morphine habit that has not been fully considered in this paper or the discussion thereof. It is the moral support that is rendered the patient by the attending physician. One physician is optimistic, and holds before his patient the difference between his life continued under the influence of opium and the possibilities of his future if he succeeds in ridding himself of the habit. The other physician is pessimistic, and does not believe it possible for the morphine habituate to become regenerate. The first physician will meet with cures, providing his patient is earnest in the attempt. The other physician will seldom meet with success. The stamina of the patient has much to do with it. One of the worst morphine habituates I have ever seen awakened one day to the belief that an honorable life without morphine was more desirable than the life of the morphine habituate who had fallen to the gutter. He simply stopped without aid, and today is a prominent, successful professional man. The will power of the patient, and the attitude of the physician have much to do in producing cures from the morphine habit.

UNCINARIASIS IN CALIFORNIA, BASED ON OBSERVATION OF SIXTY-TWO CASES.*

By HERBERT GUNN, M. D., San Francisco.

THE reasons which prompted the writer to investigate the subject under consideration were that during the year 1904 he encountered, comparatively speaking, a somewhat unusual number of cases of uncinariasis, in the ordinary course of practice and in his service in Dr. Hirschfelder's wards of the City and County Hospital of San Francisco, and that he became aware of the fact that quite a number of Porto Ricans were located in this state. The belief that the disease was being overlooked, and that a somewhat extensive importation had occurred, was found upon investigation to be justified.

Only two years ago it was stated that only 38 cases of uncinariasis had been reported in the United States[1]. Since that date many cases have been observed in this country, and the disease has been found to be endemic in many of the southern states[2], as far west as Texas[3]. In California the first cases were observed by Dr. P. K. Brown[4] and Dr. Evans[5], but the total number reported, outside of the army, had only reached 8 when the writer added 7 to the list in a recent publication[6].

Thus far no case has been observed originating in this state, but that such a statement will be possible a few years from now the writer has very grave doubts. The same may be said of the Hawaiian Islands.

There are undoubtedly many sources from which the disease is being imported into this country, but none, it is believed, greater, at least for this state, than the Hawaiian Islands with a Porto Rican colony of laborers four or five thousand strong. Several years ago these people were taken to Honolulu to work on the sugar plantations, and now, for various reasons, they are coming to California, most of them to remain in our midst and a few going east or returning to their native soil. It is estimated that there are in this state over 1,000 Porto Ricans, 600 located in San Francisco and the rest scattered throughout the state. Many are working in the vegetable gardens around San Francisco bay, as in San Leandro, San Lorenzo, Niles, etc.

Quite a number have gone to Los Angeles and from there probably out into the surrounding farming country. Nearly every steamer from Honolulu brings from 15 to 30 Porto Ricans, and, as before stated, there are several thousand there to draw from.

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With the co-operation of the Fruit and Flower Mission and the Associated Charities of San Francisco and the able assistance of their most efficient nurse, Miss Kane, the writer examined a large number of Porto Ricans, with the most interesting and instructive results. At first individuals were examined for the sole purpose of demonstrating the existence of the hookworm and of ascertaining the proportion of persons so affected. For this purpose blood smears were taken and examined for eosinophilia, and in those in whom it was found the feces were examined for ova. After a number of examinations had been made the writer encountered what is for the Porto Rican a new disease. A disease known by Manson[7] to exist in the West Indies, but in just what islands was unknown. A second case of this parasite, Bilharzia hematobia, was later observed. The ova were found only in the feces, and showed the characteristic, laterally placed, spine. It is probable that this latter infection was brought from Porto Rico, though possibly it might have been contracted in Hawaii.

These observations materially increased the amount of labor incident to the study of the excreta, as a somewhat prolonged examination was thereafter made of both urine and feces in order not to overlook further cases should they occur. Later the blood examinations were made entirely at night for the purpose of observing in addition the presence or absence of the filaria nocturna.

Ashford's[8] observations in Porto Rico were corroborated as far as these studies were carried, 5 cases of filariasis being observed in an examination of about 35 specimens of night blood. Among the Porto Ricans in San Francisco the infection with the uncinaria was found to be very extensive, being in the neighborhood of 60% of all unselected persons examined. The total number of infected patients observed by the writer to date is 62. This is practically the condition that exists among the Porto Ricans in their native isle, where Ashford[9] has shown over 50% to harbor the parasite.

During the investigations many persons examined showed evidences of the disease both clinically and in the blood picture who refused to submit specimens of the stools for microscopic examination. In these cases a probable diagnosis only of uncinariasis could be made, and these are not included in this report. In the 62 cases here considered the diagnosis was rendered absolute by the microscopic findings. Most of the persons infected showed, upon examination, some evidence of the disease; a small proportion appeared absolutely well; and a fairly large proportion presented more or less severe symptoms. In general it may be said that the symptoms in the majority of the cases of this series were referable to the gastro-intestinal tract; chronic indigestion; constipation as a rule, occasionally diarrhea, and in a few cases bloody stools.

Epigastric pain and tenderness were almost always noted. General weakness and inaptitude for exertion were often present. In only a relatively small number were the blood changes well marked. A slight degree of anemia, usually a reduction in the hemoglobin, was almost constantly encountered. In a few cases the anemia was quite grave, and presented all the aspects of a secondary anemia. An eosinophilia was usually, though not always, present, and averaged about 14%.

Treatment has been instituted in over 33 of these cases, thymol being the drug depended upon. An average of probably 3 treatments, with a week's interval between each, was required to effect a cure.

Here, then, we are confronted with a preventable and curable infectious disease which by its ravages has, in many parts of the world, incapacitated thousands and directly and indirectly caused the deaths of not a few; a disease which can infect the human being in at least 2 ways—through ingestion of infected food or drink, and directly through the skin. As is well known, the mother worm residing in the small intestine of the human being gives off an enormous number of eggs, which do not develop until they leave the intestinal tract. If deposited in suitable media, as water or moist earth, an embryo soon appears, and in a short time escapes from the egg and moves about freely. If this embryo should at this stage or later gain access to the alimentary tract, it would there develop to maturity, thus completing its cycle. The embryo may pass through the skin, as shown by Loos and Bently, entering the hair follicle, penetrating the tissues and gaining access to the blood vessels, hence to the alimentary tract.

The water supplies, wells, springs, etc., in the country districts offer the most likely source of contamination and future spread of the disease. The children going about barefooted, as they often do, in the country districts, will be exposed to infection wherever the soil has become contaminated. It can readily be understood how uncooked vegetables—lettuce, tomatoes, radishes, etc.—might carry the disease, especially as in many of the vegetable gardens the excreta is absolutely uncared for, and in some of the gardens possibly made use of for purposes of fertilization.

When once the disease has a foothold it is most difficult to eradicate, as shown by the course in the mines of the Westphalian district in Germany, where great expense and labor have been required to control its spread. Not until a commission working in conjunction with the mine owners and with the co-operation of the police took hold of the subject was it brought under control, so thoroughly disseminated had the disease become. Our government is now attempting the huge task of eradicating the disease from the island of Porto Rico. The prophylaxis against the disease is simple, but not always practicable. If the feces are destroyed, the parasite cannot develop.

Moist earth and warmth are required for the eggs to develop into embryos, and these requirements are at hand in nearly all parts of our state at most times of the year.

It is impossible to expect thorough sanitation with the proper disposal of excreta in anything but our cities and towns; therefore, the great portion of our state will afford ideal conditions for the cultivation and dissemination of this disease, and with the enormous importation of known cases there is a possibility, apparent and real, of this state becoming a hotbed of uncinariasis. In conclusion, it is recommended that the infected persons already here be sought out as far as possible and subjected to treatment. The treatment is so simple and the results so good that anyone can carry it out. Further and most important of all, why permit these thousands of individuals now in the Hawaiian Islands to bring this disease into our state at all? Why not examine them before they are permitted to land, and those found infected subjected to treatment? This would unquestionably be the easiest and by far the least expensive way to deal with a problem which, if left untouched, will end in disaster.

DISCUSSION.

Dr. George H. Evans said: We owe a great deal to Stiles, Harris and others in the east, and to Gunn on this coast, for the work which has been done in uncinariasis. There are two points of interest which were not elaborated by Dr. Gunn, namely, the geographical distribution of the worm, and the treatment of the condition. Stiles has called attention to the fact that the parasite found in North America differs in morphology from that found in Europe and the Orient, and has classified the American form under the caption of *uncinaria Americana*, the principal point of distinction being in the buccal capsule, the American form having semiluner plates or lips instead of the ventral teeth of the European variety. That this geographical distribution does not hold good, how-

ever, has been shown by the fact that in a case reported by myself in the *Journal A. M. A.*, April 11, 1903, the parasite was of the American variety, yet the host had contracted the disease in the Philippines. Capps also reported the case of a man suffering from the presence of the European worm, who contracted the disease in Panama.

The treatment of the condition is with large doses of thymol. It has not been uniformly satisfactory, many of these patients returning months afterwards and showing the presence of ova in their stools. We should be careful to keep these patients under observation for as long a period as possible, examining their stools daily for the presence of ova.

More precautions should be taken to prevent the entrance of those suffering from this condition into our ports, and this can only be done by a rigid quarantine of all suspicious persons, and thorough examinations by competent men. They should only be allowed to land after repeated examinations of the stools had demonstrated the absence of ova.

(1) Stone, *Medical News*, N. Y., April, 1903.
(2) Stiles, Bull. No. 10 Hyg. Lab., U. S. Pub. Health and Marine Hosp. Service, Washington.
(3) Smith, *Am. Journal Med. Sciences*, Nov., 1903.
(4) *Boston Medical and Surgical Journal*, May, 1903.
(5) *A. M. A. Journal*, April 11, 1903.
(6) California State Journal of Medicine, April 1905.
(7) Manson, *British Medical Journal*, Dec. 20, 1904.
(8) Ashford, *N. Y. Medical Record*, Nov. 7, 1903.
(9 Ashford, *American Medicine*, Sept., 1903.

ADOLESCENCE IN GIRLS.*

By F. R. BURNHAM, M. D., San Diego.

THE two periods of greatest danger in a woman's life are puberty and the menopause. Of these, the former is the more important, as it heralds the dawn of womanhood; and further, if puberty be safely passed, the menopause is quite likely to be the same, for storms or calm at puberty indicate what the change of life will be. Woman is the best exponent of the nation, indicative of its growth, prosperity or decadence. This is particularly true of the American woman of to-day, because of the freedom she is given, and the enthusiasm with which she enters into the complex activities of our strenuous life. Will she succeed? After a grand struggle she has won the best; the future will decide what she will select. The great victory she has won will be fruitless, unless the physician, the home and the school wisely unite their efforts to guide the adolescent girl through the intricate maze of dangers that beset her pathway to mature womanhood. In this struggle woman will only succeed when she recognizes that adolescence is a sacred time of "reverent exemption from the hard struggle of existence in the world and mental effort in the schools"; that intersexual differences exist and must be observed by frequent periods of rest; that woman can accomplish more in 25 than in 28 days.

Up to the eighth grade in our public schools we find our girls mostly healthy, with rosy cheeks, laughing eyes and strong muscles, joining the boys in their games, running about with as much freedom as the wild fawn on the mountain side. But from this time a change takes place in a large number of our girls. They lose their rosy cheeks, become pale, anemic, chlorotic, listless and take no active interest in athletic sports of any kind. Up to the age of puberty girls and boys are alike, and with like treatment like results will be obtained. At this age, however, a distinct physical change takes place in the girl; her bust fills out, her hips broaden and there is a general fullness and rotundity of the whole body. With this change a new factor enters into the girl's life that is to dominate it until the menopause takes place. A change that makes a distinct difference between girls and boys, more insistent up to the age of 20, but always present, and exerting a marked influence upon woman's activities until the fruitful age is past.

Christopher Martin well says: "A remarkable transformation in the psychic, emotional and mental life takes place in a girl at the age of puberty." Why this change? The hitherto dormant function of reproduction asserts itself, giving rise to new conditions and new dangers. If a girl is in good health, menstruation should appear without distress of any kind; if rationally treated, it will readily harmonize with the other functions of the body. If the girl has been properly instructed, she will recognize that the fullness of womanhood has begun to dawn. If ignorantly ignored, or if, as many of our modern women seem to think, they can crush it out and thereby put themselves on the same physical footing as men, the results will be disastrous. Puberty means scarcely more than a change of voice to most boys; they go on without interruption increasing in strength and endurance; but the girl's endurance remains at about the same level from 14 to 20 years. Hereafter a new standard must be made for the girl.

G. Stanly Hall says we "should respect the law of sexual differences, and play the part harmoniously in the great sex symphony by stepping aside for frequent periods of rest." Nature, from this time on until the twentieth year, seems to devote all of her surplus energies to the perfect development of reproductive organs, and woman's capacity, both mental and physical, is largely measured by the healthy performance of this function. The great, all-pervading object of nature is the reproduction of her species; this is evident on every hand, both in the animal and the vegetable kingdoms. In the human species it surrounds the reproductive function with every safeguard, not only in monthly ovulation, but by subordinating all of the higher functions of the body to this one, that failure to reproduce shall be impossible. During adolescence nature every 4 weeks, for at least 1, turns all of her energies, except what is necessary for mere existence, to the one duty of perfecting the growth of the reproductive organs. If we attempt to thwart nature my directing all of the girl's energies to her brain, there will inevitably be a clash of forces, with great danger of ultimately wrecking the whole system.

Wherever there is increased function, increased blood is demanded. If we direct blood to the brain that should go to the reproductive organs, we rob them, and proper development is retarded or stopped. Dr. Carstons says: "With advancing civilization, and the work thrown on the brain at puberty by the intellectual requirements of the day, we have found that many young girls at the age of puberty, on account of the studies they have, remain physically defective. It is too much work for nature. The body may even develop, but nutrition is all used up in supplying the brain with the necessary nourishment, the pelvic organs are neglected and the result is an infantile uterus, while menstruation is often painful and scanty; all emmenagogue remedies usually recommended are absolutely of no use. By stopping all studies, putting the girl in the fresh air and letting her live a normal life, with plenty of exercise, development of the uterus may still take place if this is done in time. If this is neglected until she is through with her school and college life, that is, until she is 18 or 20, the poorly developed uterus will generally remain. It is a matter of experience and observation that excessive mental exertion of whatever kind during the developing period interferes with healthy, normal growth.

Further, during youth, when accelerated growth is going on in the whole system, there is diminished resistance to fatigue. This is significantly true of girls. Now we have the problem before us. At the age of 13 or 14, when the special functional life is attempting to establish itself, and when for a time a large amount of blood must be diverted to the pelvic organs, our school girl passes from the grammar to the high school. Her intellectual work is decidedly increased and various forms of dissipation

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

are begun, of which school fraternities are the worst, for they result in shortened hours of sleep, late, indigestible suppers, dancing, etc., all of which tend to unsettle the nervous system. Now what is the result of this increased mental work and dissipation? Simply a physiological fact that much more blood is diverted to the brain because of increased function, the reproductive system is robbed and failure of normal development follows. No matter how heavy the work or short the hours of sleep, the girl's active intellect and conscientiousness (developed at this age) drive her on in spite of backache, headache and every other form of physical suffering, to carry to a brilliant finish mnch more work than her boy competitor; bnt the results are left behind to manifest themselves later.

Dr. Mary Riter of Berkeley says "that after years of study of the girls in our State University, she finds that 26% have headaches, 29% constipation, 67% menstrual disorders." She also says most of these ills ars sown in early girlhood, from which the harvest of semi-invalidism is reaped in mature womanhood. The question is often asked. Why do we have so much more sickness in girls than boys after the eighth grade? It is largely from onr misconception that girls and boys are physically alike and can be treated the same. It is the failure to recognize the fact that the period of developing womanhood is one of great nervons and vascular excitement when the system is in a state of nnusual activity and susceptibility during the incomplete establishment of the menstrual function. For a short time before the beginning of the menstrnal flow the system is wronght up to a high pitch of nervous tension, to be followed in a few days by a corresponding depression.

There is no recognition of the physical differences between girls and boys in our present co-edncational methods. Girls and boys alike are expected to do identical work in the same time and with the same instructors (for this is co-education). The girl is too conscientious to slight her work and too proud to lose her place in the class, so she conceals her physical suffering, and, like a horse under whip and spur, goes through it with probable collapse following, and with injury to the reproductive and nervons system that may reqnire years of medical attention to remedy. It is atrocious to require a young girl during the physical and mental depression that follows menstruation to take a competitive examination; and yet it is being done every day. The present methods of treatment of girls in public schools are not defended by any one in the community. Teachers are distressed by conditions they have to meet. Parents are dissatisfied and even angry with the effects of the public school system upon girls. Is it not high time for the medical profession to take a firm stand and insist upon the necessary reforms?

The home needs reforming as well as the school; co-operation is absolutely necessary for the best results. In the first place, teach parents the necessity of proper hygiene in the home. Fresh, pure air night and day; long hours of quiet sleep, with plenty of good, plain food at regular honrs. The home, and not the street or the assembly hall, is the place for girls, with rare exceptions, np to 18 years of age. The mother should give her daughter full knowledge of what menstruation is and what it means, and the care that it is necessary to exercise to maintain good health; also the dangers of improper relations of the sexes. The clothing shonld not constrict the chest or waist, nor put undue weight upon the pelvis. I think all agree that co-education as now practiced is a serious injury to a large percentage of our girls and women. Dr. Celia Mosher says: "We mnst reluctantly conclude that it is not yet proven that the higher education of women is not injurious to their health." I also think that those who have looked into the subject will concur with me that most of the injnry is done in the preparatory school.

As Hall says, after the ferment of pnberty has spent itself and under wise treatment the menstrnal function has become normally established, the college work can be done without injury. But co-education is with us, and it will stay. What can we do to prevent its injurious effects and get the best results? It is my personal opinion that the sexes should be separated from the 8th grade through the preparatory course, to be brought together during the college work. It is during this period, when the girl's fnnctional life is being established, that she should have certain privileges and immunities, without embarrassment of the presence of the opposite sex. This, however, is impractical at present from an economical standpoint.

What are its worst features? (1.) Too many hours in overcrowded, badly ventilated schoolrooms. Final examinations. Identical courses. Identical diplomas. The credit system which includes competitive examinations. Lack of proper physical exercise. The majority of our girls should take from 5 to 7 years to complete the high school course. They shonld not attend school more than one session daily. Durjng menstruation they should not be reqnired to give recitations, and if the function is not normal should not attend school at all for 2 or 3 days. They shonld be given proper physical exercise every day, and not in the schoolroom between desks, but in a gymnasium, or in this climate in the open air.

Final examinations are the most infernal and nnnecessary inventions continued from a barbarous past to persecute our girls. No good reason can be given for their use. Girls have been known to lose 3½ pounds dnring one of these examinations. Some one has well said: "There is no time or place for organic repentance provided by natnre for the sins of the schoolmaster."

Identical courses is a bit of prejudice left over from the struggle for equal education of sexes; it should be eliminated at once. Our course of study in the high school should be elective, with eqnivalent stndies. There are certain stndies that each sex excels in, and these should be the majors. Diplomas should be granted on credits, as some of our universities are now doing. The marking in weekly or monthly examinations by which credits are obtained shonld be changed to simply passed or failed. The constant struggle to get the *one-mark* on the part of many of our girls is very injurious at this time in their lives. I cannot close this paper without an earnest appeal to the members of this society and the entire profession of this state to take a personal interest in our public school work. The public, as a whole, know nothing abont how their children are being edncated. Our teachers are a body of able, conscientious men and women, trying to do their best under incompetent supervision. Our boards of edncation are mostly the end product of the political machine. Our superintendents, with rare exceptions, are either ignorant or forget their sacred trust in their mad rush for political pelf.

DISCUSSION.

Dr. Charlotte J. Baker, San Diego.—The importance of this subject cannot be overestimated, and it deserves the careful consideration of every physician. While I agree with Dr. Bnrnham in the main, there are one or two points in which I differ. He says that puberty in the boy means scarcely more than the change of voice. While not showing as marked physiological changes as in the girl, I feel that it is as important a time for him; the changes in his whole nature, moral, intellectual and physical, are great, and demand the instruction which only a good physician can give. The so-called "necktie age" means much in the future life of the body. As for the education of the girl, which Dr. Burnham seems to think possibly should be different from that of the boy, I think that education is a matter of the individual and not of sex, the boy often inheriting the mother's tastes and mental capacity, and the girl the father's. The age at which girls shonld be carefully watched,

as regards overdoing, begins not at the 8th grade, but in many cases at the 6th, and long before that time she should be well informed as to the development of her body, especially of the reproductive organs. This the wise physician can counsel and advise the mother to do.

Dr. Ray L. Wilbur, Stanford.—It seems to me there is one simple thing that we can do in the cases that come to our attention, even though we are not able as yet to provide a sane education for our young girls. That is, to remove from the classroom every young girl who shows at the beginning of her menstrual life mental or physical strain. She can be kept out a year or two and given proper physical exercise and rest at home until her condition becomes more stable. This should be urged upon ambitious parents who thoughtlessly are willing to sacrifice the future of their children rather than have them fall behind their neighbors in the mad race for knowledge.

A PRACTICAL METHOD FOR THE DETERMINATION OF THE DEFECTS OF THE SPECIAL SENSES IN SCHOOL CHILDREN, WITH A REPORT OF THREE THOUSAND SEVEN HUNDRED AND EIGHTY EXAMINATIONS.

By LOUIS C. DEANE, M. D., San Francisco.

BEFORE entering in detail upon the findings of the inspection of eye, ear, nose and throat defects among the children in the public schools, it would be well to give, in a way, the method pursued.

The inspection of school children in regard to defects of the special senses, only follows in line with the present rapid progress in medical science and hygiene, and has been taken up and carried to useful ends in other large cities, such as Chicago, Philadelphia, New York and Boston.

A practical method of examination is in the experimental stage, and each of the cities that I have mentioned is pursuing the work on somewhat different lines, though all with the same high aim and scientific enthusiasm. After carefully reviewing the systems as practiced in other large centers, I adopted what I thought best for our needs, and added a number of new features which, to my mind, would facilitate this work and render the records of future value to the pupil, and of scientific interest.

One word more to justify these elaborate preparations for apparently so simple a procedure. Firstly, be it remembered that eyes were never created for the purpose to which we largely put them. The Lord never intended that we should look long and fast at small objects, barely a sixteenth of an inch in diameter, such as our usual printing type. When one considers that the little child is compelled, through the exigencies of our present form of education to use his eyes for this unnatural purpose, for from 6 to 10 hours a day, is it a wonder that small defects become great ones, and that certain diseases, such as myopia, are on the increase in alarming proportions? In the high school it was manifest in 22% of the girls examined, and in 14% of boys. These figures can be appreciated when we compare them to this defect as rated among illiterate and savage people. It is rarely seen in the peasant classes of Europe, and practically unknown among the Nubians, Laplanders and Patagonians.

The examination of the pupils can hardly be placed in the hands of the teacher, who has neither the time nor the knowledge; again it could scarcely be expected of the inspecting oculist to enquire personally into the condition of each pupil, only to find here and there a case requiring his special care. So I adopted a plan between these two extremes, that of placing in the hands of the teacher 13 simple but pointed questions to be asked each pupil, and if any one were answered in the negative, this pupil should be referred to the inspecting oculist, who would, if necessary, notify the parent through regularly printed blanks.

A large test card of various-sized letters is given each teacher, with a number indicating each size of letter, which represents at what number of feet that line should be read by a normal eye, i. e., if the 40-foot line is read at 20 feet (the distance at which the card is placed) the vision is noted down as 40, and the oculist understands it as 20-40 or ½ vision.

Test Card.

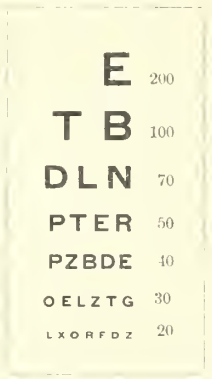

Fig 1.

A record blank is also given each teacher, on which each pupil's name is written, and a line following to record the answers to each of the questions.

The questions to be asked by the teacher are the following: Name, age, sex.

Eye.

1. Does the pupil fail to read the 20-foot line? If so, what is the lowest line that can be read by the RIGHT EYE?
2. Does the pupil fail to read the 20-foot line? If so, what is the lowest line that can be read by the LEFT EYE?
3. Does the print suddenly become blurred, and do the eyes habitually grow weary after study?
4. Does the pupil habitually suffer from headaches?
5. Does it seem as if the pupil had crossed or diverging eyes?
6. Does the pupil suffer from inflamed or crusted lids?

Ear.

1. Does the pupil complain of earache in either ear?
2. Do the ears run, i. e., does matter or a foul odor proceed from either ear?
3. Does the pupil fail to hear an ordinary voice at 20 feet with either ear?

Nose and Throat.

1. Is the pupil frequently subject to "colds in the head," discharge from the nose or "dripping in the back of the throat"?
2. Is the pupil an habitual mouth breather?

Special.

1. Is the pupil's general standing in the class excellent, good, fair or poor?
2. Does the pupil wear glasses?

The general directions printed upon the back of this record blank are as follows:

Do not expose the test card of letters except when in use, as familiarity with its face leads children to learn the letters "by heart."

First grade children need not be examined.

The examination should be made privately and singly.

Children already wearing glasses should be tested with such glasses properly adjusted on the face.

Place the test card of letters on the wall in a good light; do not allow the face of the card to be covered with glass.

Place the pupil twenty feet from the test card of letters.

Each eye should be examined separately.

Hold a card over one eye while the other is being examined.

Do not press upon the covered eye, as the pressure might induce an incorrect examination.

Have the pupil begin at the top letter of the test card and read aloud, down as far as he can, first with one eye and then with the other. Note the number of the last line he is able to read with each eye. If the 20 line is read, make no note of it.

Each ear should be tested by having the pupil hold his hand over first one ear and then the other. The pupil should close his eyes during the test, stand at a distance of 20 feet and repeat words and numbers after the teacher, who will talk in an ordinary tone of voice.

In answering the questions on the report blank, unless they are in the a..rmative, make no mark.

At the beginning of the term, principals of schools are notified somewhat as follows:

Notification to principals.—Special eye, ear, nose and throat record blanks have been prepared for the purpose of recording and correcting affections of the above named organs.

These blanks will be sent to you just previous to the visit of the inspector, who will, by arrangement with you, call a teachers' meeting and instruct them in their use.

As there are a number of schools, it may be several weeks before the inspector can call, but it is urgently recommended that when such an examination is conducted, the inspector will meet with your hearty support and co-operation.

All cases of acute or infectious diseases of the eyes or throat are to be immediately recommended for examination to the physician in charge of your school, who will examine and refer home; but all cases of poor vision, deafness, chronic nose or throat trouble, not requiring immediate attention, are to await the visit of the inspector especially detailed for that work.

(Signed) SUPT. OF SCHOOLS.

Plan of procedure.—The inspector is to call the principal and teachers together and give them *further instructions than those printed on the report blanks,* and demonstrate the test on several children.

Each teacher is to be given a report blank, with instructions to test only 5 pupils at a time (say, during the morning recess), so that in a class of 50 the work can be finished in about two weeks. The teacher must not attempt to "go through" the whole class at once, or be in a hurry. After the examination of the class is completed, the blank is given to the principal. After all the report blanks have been turned in, the principal will notify the chief inspector.

The findings will be carefully reviewed, and those cases selected which seem to require special attention. These pupils will be carefully examined, and if requiring the care of a specialist, the parents will be notified, to that effect, upon regularly printed postals. The report blanks will be finally returned to the principal, who will file them away for future reference.

Before the end of the term, the same banks are to be returned to the teachers, who, in the column of remarks (ultimate results) opposite the names of those checked by the inspector, note the outcome of such cases, i. e., whether the parents have taken notice of the warning given them or the apparent results of treatment or otherwise on their health and general standing. When this is done the principal is again to collect the blanks and notify the inspector.

The inspectors are to keep careful notes of their findings, recording the diagnosis of the various eye, ear, nose and throat affections, in the column provided for that purpose on the blank.

Examination as conducted by the inspector.—The pupils that seem to require special attention are called singly by the inspector to a separate room, where an examination is conducted with the idea of determining whether the pupil is in fit condition to continue with his school work, and to ascertain in a general way the nature of his trouble.

Each inspector is provided with the following, for the eye: +1D. sph.,—1D.sph.,—3D. sph.,+1D.cyl.,—1 D. cyl., pinhole disc, red glass, Maddox rod, and 10°, 4° and 2° square prisms.

For the ear, nose and throat: a head mirror, ear speculum, probe, cotton applicator, wooden tongue depressors and nasal speculum. The test letters are placed at a distance of 20 feet, as is also a lighted candle. The examination is carried out as carefully as possible with the means at hand.

Final results.—The results of these examinations must of necessity include many inaccuracies. Taken as a whole, and only regarding the marked defects, they are of great value in showing the affections that are most prominent, combating them in individual cases, and above all enabling us to correct the causes of many, by improved school hygiene.

To give some example of the weakness of the following report, it will be noted that only 5% of hypermetropia of more than 2 D. is recorded. This does not mean that less than 2 D. is not a frequent cause of trouble, and that a number of cases of more than 2 D. were not overlooked because only those were examined who complained of asthenopic symptoms. Again it is exceedingly difficult to determine the amount of hypermetropia in children without considerable effort to compel them to relax their accommodation. Only myopia of more than 1½ D. was recorded, though if less amounts had been noted the percentage would easily have been doubled. By determining astigmatism the word of the child had to be taken and much was overlooked.

Those complaining of asthenopic symptoms, with or without poor vision, come under the inspector's notice for eye troubles. The number under this heading was greatly lessened by children who were already wearing glasses, and as a result had no such symptoms. Defective hearing was only reported where both ears were affected and the hearing of the best one recorded. With difficult breathers, those were noted who were chronic and persistent mouth breathers; this, of course, represented only the more severe types of adenoid vegetation, enlarged tonsils, hypertrophic, rhinitis, etc.

One thing that the report shows is that there is a marked lower standing of those suffering from eye, ear, nose and throat affections. Much could be said regarding school hygiene, and the results of the following report is a grim plea for improved conditions. It shows that 13% of all children attending school are sufferers, and complain of their eyes, this number representing those who have received no attention.

Most of the schools of this city have been constructed with no thought to these matters, examples of which are to be seen on all sides, and with a correction of which much of the existing eye trouble could be markedly reduced.

Prof. Cohen of Breslau, who has devoted 40 years of his life to the study of such matters, states "that school work improperly conducted is an important factor in the causation of many eye defects, especially short-sightedness or myopia." He means by this that besides lighting, other factors have to be considered, such as the type, paper, division and character of recitations, where the eyes are brought into more or less use, position assumed in study, ventilation, etc.

While almost 6,000 pupils were examined during the last 4 months of 1904, but 3,781 were tabulated, owing to the difficulty of recording cases previous to the present arrangement.

Report.

Total number of pupils examined by teachers, 3,781.

Number found by teacher to have some defect, 1,772, or 47%.

Number found by inspector to be in need of treatment	Girls, 487 Boys, 264	751 or 20%

Eye.

Vision of best eye	20/40 to 20/50	305 or 8%
	20/70 to 20/100	117 or 3%
	20/100 or worse	37 or 1%

Anisometropia	vision of worst eye 20/50 ..... 20/100	151 or 4%
	" " " " 20/200 or worse	53 or 1½%
Hypermetropia, over 2.D		161 or 5%
Myopia, over 1.50 D		147 or 4%
Astigmatism (marked)		164 or 5%
Asthenopic Symptoms (severe)		203 or 6%
Heterophoria	Esophoria, 4° and over	114 or 3%
	Exophoria, 2° and over	17 or ½%
	Hyperphoria, 1° and over	9 or ¼%
Heterotropia	Convergent	26 or ¾%
	Digergent	5 or ⅛%
Chronic Conjunctivitis and Blephoritis		66 or 1⅔%

Ear, Nose and Throat.

Cannot hear an ordinary voice at twenty feet with either ear		51 or 1½%
Chronic discharge from either ear		32 or 1%
Difficult breathers (pronounced and chronic)	Adenoids	111 or 3%
	Enlarged tonsils	93 or 2½%
	Hypertrophic Rhinitis	41 or 1%

Comparative class standing of those normal functions and those suffering from eye, ear, nose and throat:

Percentage of total class standing	Excellent	271 or 7½%
	Good	1317 or 35%
	Fair	1366 or 35%
	Poor	821 or 22½%
	Total	3781
Percentage of standing of those complaining of Eye, Ear Nose and Throat trouble	Excellent	37 or 5%
	Good	208 or 27%
	Fair	272 or 35
	Poor	234 or 33%
	Total	751

I wish to thank Drs. J. E. Thompson, A. P. Hall and Albert Cohen for their able assistance in obtaining these statistics, also to the friendly support of the boards of health and education.

THE CONVEYANCE OF SYPHILITIC INFECTION BY MEDICAL MEN.*

By DOUGLASS W. MONTGOMERY, M. D., San Francisco.

THE present paper is limited to the consideration of those unfortunate cases where the medical attendant has been instrumental in conveying the infection to the patient, and under the term "medical men" are included physicians, surgeons, midwives, dentists and medical attendants.

Inasmuch as this paper does not contain an account of any of my own delinquencies—for I do not know of any I have committed—it may have a flavor of confessing the faults of other people. I shall, however, try to relate the misfortunes of others as modestly as possible, and with the sole view of profiting by their experience. In the matter of accidents no man need boast. One who has led a very active life has said: "Show me the man who has never made a mistake, and I will show you the man who has done nothing."

I do not believe that these unfortunate accidents are at all frequent. Much oftener the medical man, in the fulfillment of his dangerous duties, infects himself. Of infections of medical men contracted professionally from their patients I have seen 9 cases, while of the conveyance of infection to others I have seen 3 cases, and in all of these latter the source of the infection is inferred rather than a proven fact.

The transmission of syphilis by dentists.—The immediate cause of my writing this paper was a patient who came to the University of California Clinic suffering from a chancre of the gum, probably acquired in a dentist's office.

The patient was an Irish waitress of 24 years of age, who showed a fading roseola of the body, and a chancre of the outer surface of the gum just above the upper right lateral and central incisor teeth. This primary lesion was a segment of a disk with its convexity upward. The upper border was well circumscribed. The surface was slightly raised above the level of the gum, and was somewhat softer than the gingival tissue, and had a bright muscle-red color. She said this lesion had appeared 6 weeks previously, and had never been particularly painful. There was a generalized adenopathy, and the largest lympathics were those under the lower jaw, the submental and the submaxillary, corresponding to the situation of the primary lesion. On further examining the patient, Dr. Florence McC. Hill found that the two teeth below the lesion were false, and had been inserted by a dentist on Market street about 3 weeks prior to the appearance of the affection on the gum. The inference, therefore, that the inoculation took place in doing the dental work is not strained.

I had previously run across a somewhat similar instance. In November, 1900, Dr. L. B. Baldwin of Chicago referred a man and wife to my care, both suffering from syphilis, and giving the following history: In the fall of 1899, shortly after having some dental work done, the wife got a sore, which was at first considered a "cold sore," situated on the inner surface of the lower lip down near the gingival fold. This sore lasted quite a long time, but finally healed. Dr. Baldwin saw her the following April, when she presented a spotted rash on the palms and soles, patchy alopecia, and mucous patches on the tongue and in the mouth and throat. By this time she had already transmitted the disease to her husband, in the usual way and with the usual manifestations. While in my care she had some adenopathy and frequent mucous patches.

It is only wonderful that this way of infection is not more frequent, considering the frequency of syphilitic lesions in the mouth and the carelessness many dentists show in cleaning and sterilizing their instruments. The danger of such an infection should be particularly marked among the cheaper advertising dentists. The dental work of the above reported case of chancre of the gum, we were given to understand, was done in such an establishment, and Bulkley has reported the case of a man who, although quite well to do, patronized a cheap advertising dentist and came off with a chancre of the tongue. (1)

The transmission of syphilis through skin grafting.—Attention has only to be called to the possibility of transmitting syphilis in skin grafting to show how easily it may occur. The danger is much more imminent than in vaccinating by the old-fashioned arm-to-arm method, for the vaccine was always taken from a child, and children rarely have syphilis, while skin grafts are always taken from adults, who much more frequently have lues. Not long since I treated a man for late papular syphilide of the face, who could in no way account for the infection except through skin grafting. He had had a severe burn, and while in the hospital had 583 grafts taken from more than 100 different people. Grafting on such a large scale partakes of the promiscuity of prostitution, and when one reflects that most of the people who furnished the grafts were hospital patients, one can hardly see how the man could escape being infected.

Deubel reports the following case of skin grafting with syphilitic infection: A man, 49 years of age, had an extensive erysipelas and an ulcerating gangrene; 43 pieces of skin were grafted upon the lesion. In due time a chancre developed, the size of a one-franc piece, and the ulceration rapidly spread over the whole of the grafted surface. The son of the patient, who had furnished some of the skin for the operation, was found suffering from mucous patches in the anus.(2)

The transmission of syphilis in genito-urinary surgery.—Genito-urinary surgeons are constantly handling this most dangerous poison, the virus of syphilis, and it is only in the nature of accidents that some of them should get infected themselves, or that they should occasionally infect others. A physician once consulted me for an immense and rapidly spreading ulceration in the sulcus, and gave the following history:

Over 4 months before, he had had a chancre in the sulcus, followed by a roseolar rash and adenopathy. He then took an inunction cure for 7 weeks. After the chancre healed a small induration remained at its site. One week previous to coming to me this induration began to extend. When I first saw the patient there was an ulcer in the culcus with a greenish-looking slough in it, but the salient feature of the lesion was an extensive induration of a woody hardness forming a tumor 5 centimeters long and 2½ broad, lying in both corpora cavernosa, but principally in the left, and extending into the glans. The inguinal lymphatic nodules were enlarged, but not tender or painful, and there was a sloughing ulcer of the right tonsil. The patient was immediately put on intramuscular injections of a syringeful of 1% solution of bichloride of mercury daily, and topically, mercurial ointment was applied. After 4 days the mass, that at first was fixed, had become movable, and in 10 days more an enormous slough had developed and was coming away. For a time it appeared as if this slough would involve the urethra, but it fortunately did not do so. Finally, both the ulcer in the throat and that on the penis healed, leaving an enormous scar on the latter.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

The doctor always maintained that he got his infection in the office of a fellow practitioner, where he was being treated for an old stricture. He was married, and said that he had not been exposed sexually, and in this he had no reason to deceive me. In fact, one of his principal grievances seemed to be that after an adventurous career in the Orient he should end up by getting syphilis in San Francisco in such a way.

It is one of the curious things about syphilis innocently acquired that the victims are more indignant than when it is acquired immorally. One might imagine that they would be glad that at least the moral delinquency could not be imputed to them. A similar case has been reported by T. Robinson of London, where a 6-year-old boy got a chancre of the penis through the use of a foul scalpel in a phimosis operation. (3) The above instances may be classed apart as genital infections which are not venereal.

R. W. Taylor reports one of these genital but not venereal infections as having occurred on the prepuce through a nitrate of silver stick or its holder. Although reports of infection through this instrument are rare, yet the danger is so evident that Fournier strongly advises against its use. I now rarely use the holder, but break off a piece of nitrate of silver and hold it with a pair of forceps.

The transmission of syphilis by tongue depressors, etc.—I suppose there is no physician who is not afraid of transmitting disease with the tongue depressor, and yet I have only found 1 case where it seems to have acted as the carrier of the virus of syphilis. Bulkley cites a case reported by Jumon, where a paper-cutter used to depress the tongue gave rise to syphilis. (4) Very probably its being so patently dangerous is the reason it so seldom transmits the disease. The cheap wooden tongue depressors are an excellent idea, as they can be immediately thrown away after use.

The speculum is another instrument that probably also owes its comparative innocence to the same evident danger as the tongue depressor, as it stimulates carefulness in its use. "From that nettle, danger, they pluck that flower, safety."

The transmission of syphilis by the hypodermic syringe.—The hypodermic syringe is an instrument that might readily be expected to carry infection, but I know of only 1 instance mentioned in literature. Fournier says that a friend of his, an eminent physician, told him he was sure he had conveyed syphilis in that way. (5) Yet the hypodermic syringe may give rise to syphilis and the fact escape notice, because when the syphilitic virus is introduced deep into the tissues, no chancre arises, and the first indications of the malady are the so-called secondary or constitutional symptoms.

The transmission of syphilis by the Eustachian catheter.—The Eustachian catheter is well known as a bearer of infection. Lancereaux has reported a case of a man 53 years of age infected in this way (6), and a French otologist is said to have caused an epidemic of syphilis among his unfortunate patients in the following way: He used to place a few patients on a bench and to use the same catheter on each of them without cleansing. The epidemic ceased only at the death of this specialist, and though the number of his victims was great, he was never prosecuted.

The transmission of syphilis by nurses and attendants.—I once ran across a case where the patient, under the charge of a trained nurse, must have had a narrow escape from infection.

A nurse consulted me for what turned out to be clear symptoms of constitutional syphilis, and I was enabled to tell her very nearly the date of her infection. She confessed to having had illicit sexual intercourse at about that time, and said that about 2 weeks after exposure she had some irritation in the vagina for which she used her patient's douche. The nurse was in great trepidation, but the patient never developed any symptoms of syphilis.

One of the most curious incidents of this kind was related by Dr. Dudley Tait before the California Academy of Medicine in 1896, some years ago, and I shall give it here again from notes kindly furnished by the observer:

Primary syphilitic infection of the stump of a Fallopian tube.—Miss H., aged 24 years, suffered from a double suppurative salpingitis, with recurring attacks of pelvic peritonitis for which Dr. Tait excised one tube by the abdominal route, and drained the other from above. At the same time he curetted the uterus. The patient left the hospital during the fourth week while the sinus leading down to the right tube was still discharging. This sinus was about 12 cm. in depth. After the departure of the nurse the patient was attended by a "lady friend," who, instead of using a probe to insert the gauze drain down into the sinus, used a "manicure orangewood stick," which she held between her lips while she changed the dressings. Five weeks after returning home the local condition of the patient changed; the secretion from the sinus became clear and less abundant, and a painful area could be made out by bimanual examination in the region of the left tube. Vaginal and rectal examinations showed absolutely nothing, and during the following 3 weeks the patient was examined on several occasions, with the same negative result. Four weeks after the above change in the condition of the sinus was first noted, a typical syphilitic roseola appeared on the body and limbs, soon followed by patches in the mouth. Lymphatic involvement in the neck was then noticed for the first time. The condition of the sinus remained unchanged. Inunctions cleared up the cutaneous and mucous lesions, and within 10 days after this treatment was begun the sinus closed. The patient afterward developed a severe secondary syphilis.

The most rigid examinations of the patient failed to show any evidence of a primary lesion in the vagina, rectum, mouth or on the skin. The only suspicious locality was the sinus. An examination made of the "lady friend's" mouth disclosed the presence of a florid, secondary, untreated syphilis. The patient had never received male visitors during the post-operative treatment, and had been under the strict surveillance of trained nurses for 2 weeks before entering the hospital, and during her 4 weeks' stay in the hospital. One year later the patient was operated upon for recurrent appendicitis, and some enlarged lymphatic nodules were found in the right iliac region. There were no adhesions in the pelvis.

Here was a case where all the conditions of exposure and order of development of symptoms were fulfilled, and nothing seems lacking to make the evidence perfect.

The transmission of syphilis by the electrical brush.—Celso pelizzari has reported the case of a child who was being treated by electricity for infantile paralysis. A chancre appeared on the very site of contact with the brush. (7) This instrument ought to be an ideal one for transmitting syphilis, as it is used as promiscuously as a barber's hair brush, and is never either washed or disinfected.

The transmission of syphilis by midwives.—The greatest epidemics caused professionally, however, are by midwives. Boothe of Sheffield, England, has related the case of a midwife who had a chancre of the finger, and who, in spite of a command to the contrary, continued to practice, covering the finger with a glove. She infected a great number of lying-in women, who in turn gave the disease to their husbands and children. The midwife was condemned to 12 months at hard labor. (8)

The epidemic in Brive, in France, was caused by a midwife. She treated about 50 women, of whom 14 became infected with syphilis, who in turn infected 8 husbands and 9 children, in all 31 persons. This was not all, however, as it is said most of the cases were hushed from motives of shame and secrecy, and that at least 100 were infected.

Mauriac, in speaking of a similar instance that occurred in Saint Euphemie, in France, in 1827, says that 50 women were infected by a midwife, and as a further consequence 30 of their husbands and children, making a total of 80 infections. (9) Taylor relates the case of a mother in childbed infected by a midwife, the chancre occurring in the region of the fourchette. The husband then got the infection from his wife and had a chancre of the prepuce and glans. Two of their children, a girl of 12 and another of 10, got chancres on the cheek and of the lower lip respectively, and were probably infected by the mother's kisses. Another child, a boy, got a chancre of the finger by picking his sister's sore, and still another child, a baby girl, got a chancre of the tongue, probably infected by the mother's kisses. The same woman infected at least 2 more families. (10)

Although the conveyance of syphilis by physicians or attendants to their patients must be very rare, yet every one should be alive to the possibility, and "eternal vigilance is the price of safety."

(1) On the Dangers Arising from Syphilis in the Practice of Dentistry, by Dr. L. D. Bulkley, *International Dental Journal*, Aug. and Sept., 1890.

(2) *Abstract Annales de Derm. et de Syph. s. ii. t. iii. p. 129.*

(3) Diagnosis and Treat. of Syph., London, 1886, p. 29.

(4) Jumon. These de Paris, 1880. Quoted by Bulkley, on the Dangers Arising from Syphilis in the practice of Dentistry, *International Dental Journal*, August and September, 1890.

(5) Prophylaxis de la Syphilis par A. Fournier, p. 301.

(6) *Ann. de Derm et de Syph.* s. II., v. VII., p. 483.

(7) *Annales. de Derm. et de Syph.* Serie II. Tome IV., p. 114.

(8) *Fortschritte der Med.* March 1, 1883, Beilage 5, p. 34. Bulkley's Bibliography of Extragenital Chancre.

(9) Mauriac. Syphilis primitive et Syphilis secondaire, p. 231.

(10) *Med. Record*, 1891, p. 73.

A CASE OF HUMAN GLANDERS.*

By WILLIAM FITCH CHENEY, M. D., San Francisco.

ON June 9, 1904, I saw, in consultation with Dr. David A. Beattie in Santa Clara, a case that at the time was a puzzle. The patient had been taken ill on June 2d, and at the time I saw him, a week later, his condition was a critical one. The important features of the case were as follows:

First—Onset with headache, aching of the bones, nausea, vomiting, fever and general malaise—the symptoms, in short, of an acute infection of some sort. These symptoms had been more or less persistent ever since the onset.

Second—On June 5th, an inflamed area had developed on the top of the man's head, which was not covered by hair. At the time I saw him, on the morning of the 9th, this inflamed area had become a large bulla, exuding a bloody, purulent secretion, and the whole top of the head around this lesion was fiery red, as in erysipelas.

Third—All over the body was scattered a peculiar eruption in various stages of development. I saw at the time of my examination numerous small red papules, larger vesicles and pustules and a number of large, pemphigus-like bullæ the size of a silver dollar, some of them containing a yellowish, blood-stained, purulent secretion that exuded and formed crusts. Around each of these lesions there was a reddened, infiltrated, brawny and exceedingly tender area.

Fourth—Besides these peculiar skin manifestations there was found a definite arthritis, involving the left knee, the right ankle and both wrists. At the time of my visit the diagnosis was uncertain. I could only suggest that an examination of the secretion from the pustules would probably reveal the nature of the infection, and this line of investigation it was that soon after settled the nature of the disease. The case was such an unusual one that I subsequently urged Dr. Beattie to report the clinical history in full. At my solicitation he furnished me the following statement:

Clinical History of the Case.

Mr. H. C. A., aged 50, weight 190 pounds, height 5 feet 10½ inches, was afflicted with chronic Bright's disease, but otherwise previously well. On June 2, 1904, at my first visit, I learned that he had been ill all night with nausea, vomiting, severe headache, and pain in every bone and muscle. His eyes were swollen and dull, the conjunctiva slightly stained yellow. The abdomen was prominent, due to flatulence and constipation. His temperature was 102.4°, his pulse 110, and his respirations 28.

On June 3d the temperature was normal, the pulse normal, there was less flatulence, but the sense of muscular soreness was the same. Some nausea was complained of, but no vomiting; the constipation was relieved. On June 4th the temperature was 101°, the pulse 80.

On June 5th the temperature was 101.4°, the pulse 82. The patient complained of nausea, vomiting, sore throat, and dryness of the nose. There was also pain in one knee. A small spot on the top of the head, which was easily seen because of there being no hair, had become inflamed.

On June 6th the morning temperature was 100°, the pulse 80, and the symptoms of the preceding day had increased. Many small red spots were seen all over the body and limbs, with an erythema around the spots. The urine was scanty. In the evening the temperature was 101.8°, the pulse 82, and respirations 27. The spot on the head had become a pustule.

On June 7th it was observed that pus had formed in each red spot. The temperature was 100.8°, the pulse 72, the respirations 26. The throat was sore, and a pustule was found on the pharynx. The ankle and knee were very tender on the left side. The pustule on the head was larger, bluish black and with a red areola around it. The evening temperature was 102.8°, the pulse 80, the respirations 28. The urine for 24 hours was 42 ounces. The amount of nourishment taken was 20 ounces. The patient complained of feeling chilly.

On June 8th the temperature in the morning was 101.4°, the pulse 82, the respirations 26; in the afternoon the temperature was 101.4°, pulse 82, respirations 32.

On the 9th the temperature in the morning was 101.4°, pulse 100, respirations 28; in the afternoon the temperature was 102.6°, pulse 108, respirations 34. The patient complained of pain in every joint.

On June 10th the temperature in the morning was 101.2°, pulse 102, respirations 26; in the afternoon the temperature was 104°, pulse 100, respirations 44. The urine was voided involuntarily; hiccough, stertorous breathing and slight convulsions were added to the clinical picture.

On June 11th the temperature in the morning was 104° pulse 140, respirations 54. The patient died at 10 A. M. The lips and face became purple, and there were slight convulsions before death.

The eruption appeared first as small red spots, which came out in successive crops all over the body and limbs. Gradual enlargement of these spots took place, and a slight elevation, so that from macules they became papules. In less than 30 hours pus formed in each lesion. When a pustule was pricked with a needle, it collapsed; the pus evacuating the place and leaving a well-defined hole, the edges being regular and their color a light red, to the distance of about 1-32 of an inch. The bottom of the pit extended well into the deep skin. At no time did these pits fill up, and there was no tendency to heal. When crusts formed and were removed, the pit was still there.

The bacteriological findings.—On June 9th, following my visit to Santa Clara, Mr. G. C. Lammers, a bacteriologist living in San Jose, was asked by Dr. Beattie to investigate the secretion from the skin lesions. Mr. Lammers has kindly furnished me the following report of his findings:

Swabs were taken by me at the bedside from the pustule in the pharynx, and from the pustules on the skin. Smears were made from these, and stained as follows: with Loeffler's basic blue for 5 minutes, submerged for 1 second in a 1% solution of acetic acid, to which had been added sufficient tropaeolin OO in aqueous solution to produce a wine-yellow color, and then rinsed rapidly in distilled water. Under the microscope cover-slips stained in this manner showed masses of bacteria, measuring from 2 to 3 microns in length and about 0.4 microns in width; they did not respond to Gram's method, and some of them showed metachromatic granules.

Cultures were also made from the swabs on gelatine, one in a Petri dish and one in a culture tube. On the evening of the second day the gelatine plate in the Petri dish showed several small colonies of a yellowish-white color, some on the very surface and some extending slightly downward. Those resting on the surface were surrounded by small transparent aurcoles. In the test tube the colonies were of about the same size as in the Petri dish, but of a more greyish, translucent and glossy appearance. The bacteria from the cultures, stained as described, were identical with the organisms found in the smears.

Guinea pigs or other suitable animals for inoculation were not at hand, and no experiments with animals were therefore made by me.

From the appearance of the stained specimens and of the cultures, taken in connection with the source from which they were obtained, I concluded that the organism was the bacillus mallei, and that the case was one of glanders.

A day or two after my visit to Santa Clara, Dr. Beattie sent to me in San Francisco some wooden toothpicks, the ends of which had been dipped in the purulent secretion and thoroughly coated with it; but from these dried specimens no successful cultures could be made by Dr. William Ophüls, to whom I submitted them, probably because desiccation had destroyed the life of the organisms. Several weeks later I was supplied with some of the cultures made by Mr. Lammers, and from these a guinea pig was inoculated by Dr. Ophüls, but without result, probably because the cultures were by that time dead.

The source of infection.—As soon as the probability was made known to the family that the patient's disease was glanders, his brother recalled the

* Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

fact that the patient's driving mare had a cold and a discharge from the nose. This mare was quarantined, and Dr. H. A. Speucer, a veterinary surgeon of San Jose, was asked to examine her. Dr. Spencer at once gave an inoculation of mallein, and eighteen hours later the animal's temperature showed an exceedingly high reading, with augmentation of the nasal discharge. Following this reaction the mare was promptly killed. Mr. Lammers secured some of the animal's nasal secretion when she was first suspected, and this showed in smears and in cultures the same bacillus as that found in the patient's pustules. It seems reasonable to iufer, therefore, that the disease in the man was transmitted from the disease in the animal.

The mode of infection.—Apparently the infection was direct to a scratch on the patieut's head by an infected finger nail. This scratch looked at first like an ordinary abrasion. It became inflamed, was covered over by thin skin, then became dark with an erythematous patch around it. This inflamed area extended and pus formed in the center of it. The erythema eventually covered the whole top of the head and the forehead, while the black sloughing extended two inches from before backwards and one inch from side to side. It is usually through some break in the skin, all investigators agree, that the bacillus mallei is conveyed to man from a horse afflicted with glanders. The only other common port of entry is the nasal mucous membrane, but the symptoms and physical signs in this case did not speak for such a route.

Other cases reported.—I can find but 5 other cases of human glanders reported in California, though 1 feel certain that more must have been observed. These 5 cases are as follows:

Case 1.—Reported by Dr. J. D. Arnold in the *Pacific Medical and Surgical Journal* in January, 1887: A boy 12 years old when first seen, complained of having had for a week vague pains in his head, nose and neck, with fever, enlargement of the submaxillary and parotid glands, and thin watery discharge from the nostrils. Soon after that the nasal discharge became profuse and greenish yellow. A pustular eruption came out over the face, neck and breast, with a hard nodular swelling at the base of each pustule. Marked anasarca of the eyelids and nose developed as the disease progressed, with redness, swelling and great pain in the whole face. General sepsis and a typhoid condition ensued with death on the 8th day after the patient was first seen. A horse belonging to the father had died from glanders a short time before, and the hay-rack and trough used by the diseased horse had been torn from the stable and thrown into the cellar for firewood. The boy handled this wood. No bacteriological investigation and no autopsy are mentioned in the report.

Case 2.—Reported by Dr. J. D. Arnold in the same paper with case No. 1: A boy aged 7, a brother of the one described in case No. 1, was taken ill at the same time with similar symptoms—pain in the throat, nose, eyes and back, with fever and a thin, colorless nasal discharge. No pustule came out on the skin except just within the nostrils. This boy recovered from his acute illness after 3 weeks, but died 8 months later from pleurisy. No mention is made of any bacteriological examination or autopsy.

Case 3.—Reported to the California Academy of Medicine in 1892, by Dr. Dudley Tait, but never published: A woman aged 29, while driving in Golden Gate Park, San Francisco, received in her face some mucus from a sneezing and coughing horse. Five days later she entered the French Hospital, with a temperature of 103°, and pulse 110. A small ulceration was found at the orifice of the left nostril, and nasal examination revealed numerous ulcerations of the lining mucous membrane. There was marked muco-purulent discharge from both nostrils. There were several pustules on the face and a submaxillary adenitis. On the second day new pustules appeared on the face and arms, and erysipelas developed, involving both sides of the face. The patient died on the third day. Smears and potato cultures from the nasal secretion showed the bacillus mallei. The suspected horse was examined by Dr. Creely, who found glanders present. The horse was killed, and necropsy confirmed the diagnosis.

Case 4.—Reported to the California Academy of Medicine by Dr. Tait, at the same time as case No. 3, but never published: A man aged 52, a farmer, first noticed in 1889, a small collection of pus in the sternal region. This opened spontaneously, and left an ulcer about the size of half a dollar. Subsequently, after several attacks of what he called "colds," he had other similar abscesses on the chest, neck and arms; also marked cervical and axillary adenitis. Marked articular and muscular pains were complained of. During the second year there was remission of the general symptoms; but no change in the ulcers and lymphatic involvement. No skin eruption at any time occurred, no digestive or nervous disorder. Later a great number of abscesses appeared, sometimes within 24 hours, on the chest and arms. Slides, agar and potato cultures and inoculations from pus, proved positive for the bacillus mallei. He died in 1903, 4½ years after his first symptoms, from acute glanders (pulmonary infection). No necropsy was obtained.

Case 5. Reported to the San Francisco County Medical Society in July, 1902, by Dr. H. A. L. Ryfkogel, and published in the *Occidental Medical Times*, December, 1902: A woman aged 35, was taken ill with symptoms resembling a severe cold in the head, and with fever of 101°. She was attended by Drs. Dunn, Herzstein and Ryfkogel. A few days previous to the onset of her illness, she was out driving a horse hired from a stable in which 2 months before 2 horses had been killed for glanders. The patient after she was first seen, developed symptoms resembling those of typhoid fever; then pain in the left knee and the right ankle; and later, small symmetrical abscesses appeared in the neighborhood of joints, on knees, arms, ankles, hands, and later also on the forehead. When opened, these discharged a thin watery pus. The abscesses became more numerous; the nose began to secrete abundant purulent fluid; the tissues in the face became enormously swollen; pneumonic symptoms developed, and there was continued fever until the patient's death, after an illness of 26 days. Smears from the pus showed the bacillus mallei. Cultures on agar and on potato gave characteristic colonies. Inoculation of guinea pigs with pus produced in every case reddened and swollen scrota; and on autopsy the tunica vaginalis was found covered with a cheese-like pus, smears and cultures from which showed again the bacillus mallei.

Frequency of glanders in this state.—I have tried to secure some statistics as to the incidence of human glanders in California, but can find none. The Secretary of the State Board of Health, in reply to my inquiry, writes me that the Board has no statistics on the subject, and there seems to be no way to discover in how many instances human glanders has been assigned as a cause of death in the State. There are likewise no statistics available as to the number of horses killed each year because afflicted with glanders, but iu a general way I am informed that the number is large. Until we do know definitely the number of horses and the number of human beings afflicted, we can draw no accurate conclusion as to the frequency with which the disease is transmitted from animals to man. It probably is not so rare as the cases here collected would suggest.

TYPHOID INFECTION OF THE HIP JOINT. REPORT OF A CASE.*

By S. J. HUNKIN, M D., San Francisco.

IT HAS long been known that joints, and especially the hip joints, were occasionally infected in patients suffering with, or during recovery from, typhoid fever, but until the last few years it was supposed that these affections were rather incident to the typhoid condition than dependent upon its specific entity. Of course until we were conversant with the Eberth bacillus, it was manifestly impossible to determine positively whether this coxitis was specifically typhoid or dependent upon varying causes, perhaps a slight traumatism, while the reparative powers were at the lowest possible ebb. Even now little is known of the bacteriology of these joint invasions, and it is still an open question whether, in the majority of instauces, the pathology is dependent upon the direct presence of the typhoid bacilli, or is not rather due to the circulating toxins generated by the bacilli. Goldthwaite believes that this varies in the different cases—that usually the condition is dependent upon the bacillary products, while at other times there is a direct invasion of the joint cavity by the bacillus.

It would appear that study of the bacteriology of the inflammatory products would at once clear up this question, but cases of typhoid joints are rare, and in most of these the diagnosis has been made late, no bacteriology has been attempted, and when attempted the result has been negative for typhoid bacilli.

Keen, in his classic monograph, reports only 5 instances in which search was made for bacteria, and in 1 only (that of Klemm) was Eberth's bacillus found.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

In another case a bacillus having some characteristics of the colon group was noted, the other cases being sterile, or having the ordinary pyogens. This is unlike the evidence presented to us in typhoid bone infection, where the germ is often found. In experimental work on dogs, Orloff showed that typhoid bacilli were present in joints during the first few days after infection, while absent later. These experiments, repeated by Janosky and Dmochowsky, verified Orloff's conclusions. They found in infections of joints with mixed cultures, the typhoid germs at first grow very luxuriantly, but later the cocci growths vanquished and destroyed them. These facts illustrate why the typhoid bacillus is not more often found in joint infections.

The question of Eberth's bacillus being pyogenic, is still rather subjudice, but it appears that under some circumstances they are actually pus producing, while usually they only favor the growth of pus germs. Klemm says when pus is generated in bone tissues by the typhoid bacillus alone, it partakes more of a fluid metamorphosis than of true pus—it is reddish-yellow in color, of a rather peculiar odor, is poor in colloid material and rich in detritus. While it is very uncommon for the Eberth bacillus to attack bone, it is most rare for it to invade the joint. In Johns Hopkins from June, 1900, to June, 1902, they report 275 cases of typhoid, with surgical complications, with not a single joint involvment, and only 2 in which the bone was attacked. After a fairly careful examination of the literature, I have not been able to find a single instance reported since Keen's monograph of a typhoid joint infection, in which the typhoid bacillus has been determined. It is only fair, however, to say that considerable investigation along these lines was done in France a few years ago, but much of the work was published in journals which cannot be obtained here, and consequently have not been examined. The rarity of typhoid infection of the hip joint, then, makes the following case one of interest:

A. J. M., aged 12 years, admitted to my service at the Children's Hospital, September 7, 1904. History, mother not robust, cousin on father's side had hip disease. Boy perfectly well up to last summer, although the year before he had complained somewhat of both legs going to sleep. Last summer had typhoid fever; some months later limped slightly. Had typhoid again last month, and is at present convalescent from it. (In this connection, it must be remembered that each time the boy is reported to have had typhoid there were other cases in the family, and in the neighborhood.) Seven days ago the patient was seized with severe pain in the right hip; it became greatly swollen and distended with fluid. Examination showed an emaciated boy, with a flushed face, coated tongue, perspiring freely, with normal temperature. He was on a milk diet, but was ravenous for food. Hip was examined and taken for a tuberculous joint, but on account of the peculiar history, the marked rapid effusion, and the somewhat characteristic facies, it was thought advisable to examine the fluid for typhoid. Some 50 cc. of a reddish fluid was secured by aspiration, and this was found to contain the typhoid bacillus in pure culture. Identification of the organism is complete, and has been very carefully demonstrated by Dr. H. Webster, of the Children's Hospital, and to whom I acknowledge indebtedness for placing its identification beyond question.

Laboratory Report.

Case A. J. M., J. J., September 8, 1904.

Specimen submitted—Fluid aspirated from hip joint with asseptic precautions.

Organism found—Eberth's bacillus (in pure culture).

Tests Used for Identification.

Agar-agar—Characteristic growth.

Bouillon—Only turbidity—no flocculent deposit—bacilli motile, and flaggelli characteristic of typhoid.

Pepton media—No Indol formed.

Stab on glucose agar—No gas formed.

Potato—Transparent film first appeared. After 10 days, brownish pellicle appeared.

Litmus milk—No coagulation. First week, non-acidity—later, blue color faded, and milk became white. At no time was there a definite pink color present.

Serum from 5 different known cases of typhoid gave Widal reaction.

Case 1—Dilution 1-40—18-hour bouillon culture. Clumping began in 15 minutes, complete in 25 minutes; motility gone.

Case 2—Dilution 1-40—20-hour culture. Clumping began in 10 miutes, complete in 20 minutes, with total loss of motility.

Case 3—Dilution 1-59—24-hour culture. Clumping began in 20 minutes, nearly complete in 45 minutes; a few scattered bacilli, retaining very slight motility.

Case 4—Dilution 1-40—24-hour culture. Clumping began in 10 minutes, complete in 35 minutes; slight motility remained in some clumps—bacilli did not leave clump after joining.

Case 5—Dilution 1-40—14-hour culture. Clumping began in 15 minutes, complete in 40 minutes.

In each, controls showed no clumping, nor loss of motility. In cases 3 and 4, the serum was tested with 3 other typhoid cultures, and with each culture motility was never completely lost. In each of these the reaction was not obtained until the fourth week of the disease, and was then not as satisfactory as in the other 3 cases.

Guinea pig—A guinea pin was immunized with known culture of typhoid after 6 weeks. Inoculation every second day for 2 weeks, and every third day for 3 weeks. Serum 1-40 used. Bouillon culture 12 hours old from the culture used in immunization gave complete clumping in 50 minutes. Clumping began in 20 minutes; motility not entirely lost.

Serum 1-40—A. J. M. bouillon culture 14 hours. Clumping began in 20 minutes, complete in 35 minutes. Very slight motility remained in clumps, but bacilli did not leave clumps after joining.

On October 7th abscess was again aspirated and fluid noted to be of a dull opaque orange color. This showed an unidentified bacillus, with a few staphylococci; agar culture gave no growth, and bouillon only a few cocci. On October 17th the fluid on aspiration was of tuberculous appearance, showed only staphylococci, and the needle found softened bone. The boy during this period had practically normal temperature, the highest point recorded being 37.6° C. He grew fat and rosy, and his general condition was satisfactory, although the abscess was extensive. Subsequent history is, abscess steadily refilled, aspiration had to be more frequently repeated, the detritus abundant, and finally resection was made.

In typhoid hip disease, the great production of fluid has often been noticed, and as the chief result of this dislocation is a very frequent concomitant. In Keens' 80 cases of typhoid joints, dislocation occurred in over 50%. Many of the cases have been taken for tuberculous coxitis, and in a few, notably Phocas' case, a tuberculous coxitis was presumed to exist previous to the typhoid infection.

Local symptoms being similar, and the history often misleading, unless the bacillus is sought, the etiology must be often rather questionable, yet its importance to the patient cannot be overestimated; the prognosis for a useful limb being infinitely greater after a typhoid infection than with a tuberculous infection. The records seem to show that in typhoid joints, after great effusion, pathological dislocation and abscess breaking down, recovery with very useful limbs is often obtained. Usually the bacillus, however, has not been found, although undoubtedly it is often present in the first stages. My case apparently followed the rule noted in the experimental infections; while the bacilli of typhoid were present in the early days of joint involvment, they disappeared when flanked by the staphylococci.

Unauthorized Use of Names.

To the Editor of THE STATE JOURNAL: A short time ago our attention was called to the fact that the Grace Darling Hospital Association was sending out circulars, our names being included on its Staff of Physisians and Surgeons. We have never been connected with that institution and our names have been used without our knowledge or authority in its advertising literature. Inasmuch as these circulars have probably been scattered broadcast throughout the State, we desire; through your columus, to let the profession know that we are in no way affiliated with that Hospital Association. Most Respectfully Yours,

RENE BINE, M. D.
HENRY H. LISSNER, M. D.

San Francisco Garden of Medicinal Plants.

The San Francisco Garden of Medicinal Plants in Golden Gate Park has entered upon its second year under favorable auspices. Over 500 species and varieties of the more important medicinal plants are now under cultivation. Special tests are being made in the cultivation of ginseng, hydrastis, senna, the rhubarbs, licorice and others.

THE REMOTE EFFECTS OF TYPHOID FEVER UPON THE BONES AND JOINTS.*

By P. C. H. PAHL, M. D., Los Angeles.

IN THE short space of time allotted to me I will confine my remarks to the joints and spine only.

Joint complications in typhoid fever are comparatively rare. Keen in 1898 was able to collect only 84 cases.

There are 3 types of arthritis complicating typhoid fever. 1st, where the typhoid germ alone attacks the joints; 2d, where there are also rheumatic complications, and, 3d, a mixed infection or septic type.

In the first instance, where the typhoid germ alone is present, the condition is usually monarticular, but may be polyarticular, the large joints, such as the hip, shoulder, knee and elbow, being usually involved, and especially the hip, which frequently becomes dislocated through muscular action subsequent to the distension of the capsule. The joints seldom suppurate or become ankylosed, the treatment for this type being preventing of faulty positions, rest in bed, splints or traction. The prognosis is generally good.

The 2d or rheumatic type frequently results in ankylosis and deformity in spite of all the preventive measures which may be employed, and frequently correcting operations are imperative.

The 3d or septic variety ordinarily appears following a virulent form of typhoid where there has been either extensive intestinal ulceration, bed sores or abscesses, and a marked degree of lowered vitality. In this form suppuration is usual, and develops early. The prognosis is bad, the mortality being about 80%.

The typhoid spine (Gibney), a painful affection of the spine unattended by angular deformity. During the course of, or during convalescence from, typhoid fever, and occasionally after apparent recovery from the disease, symptoms of pain and stiffness of the back may appear. These are apparently caused by secondary infection of the fibrous coverings and attachments of the spine similar to the more common but more severe forms of periostitis of the tibia or other bones from the same cause. There is usually pain on motion and pain on pressure over the affected vertebræ. (Whitman.)

There are 3 distinct conditions of the spine which may arise after typhoid fever: 1st, the true perispondylitis of Gibney; 2d, a painful condition of the muscles of the spine, resulting from a mechanical strain or injury, and which is not a perispondylitis; 3d, the hypersensitive, neurasthenic, painful spine which is merely a neurosis, and consequently not based upon the same pathological findings.

In most cases there is no history of injury, but this has been present in some. The pain is usually in the lumbar region, intense, sharp and shooting in character, and is comparatively bearable so long as the patient is lying flat upon his back, but is much aggravated by any movement of the spine, either anteroposteriorly or laterally, even turning in bed is extremely painful, and it is only by making a muscular effort and fixing the spine by all the voluntary muscles that it can be accomplished, and then only by aid of the nurse. Deformity is present more or less marked in every case where a true pathological lesion could be considered; but in those cases where the neurotic element far outbalances the local conditions, this is not seen.

Osler reports a case, man, aged 24, after convalescing from typhoid fever, had some pain in his back, but was up and about, and even able to play tennis. After a fall, he suffered excruciating pain in the lumbar region, and could only rest in the recumbent posture. Deep pressure over the iliac region of the left side and anterio-posterior motion caused excessive pain. There was some fever. These symptoms continued from the end of November to January, and it was March before he was well. (W. J. Taylor.)

In recent correspondence with Dr. John Ridlon of Chicago, he stated that he had seen at least 3 cases of typhoid spine in the last 2 years. One of these patients, after spending several months in bed, had a spinal brace applied, and was sent to Southern California, where he remained some months and made a good recovery. It seems that this young man got to work too soon after having had typhoid, and this spinal difficulty followed.

Another patient gave a similar history, but had the tarsal joints also affected. This patient remained in bed 3 or 4 months, did not wear a brace, and is now well.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

COUNCIL ON PHARMACY AND CHEMISTRY.

American Medical Association.

OFFICIAL REPORT OF ACETANILID MIXTURES.

The following report has been approved by the Council:

To the Council on Pharmacy and Chemistry of the American Medical Association:

In response to the request of your chairman we have investigated the below-mentioned preparations and report as follows:

Specimens of the articles were bought in different cities in the open market, and in original, sealed packages, and were analyzed by some of us or under our direction. Each article was examined by at least two chemists, and some were subjected to several analyses. While certain of the preparations are represented as being chemical compounds, the specimens examined were all found to be mixtures; the principal ingredient being acetanilid. The percentage proportions of acetanilid given below are the minimum obtained by any of the analysts.

Soda and ammonia combined with carbonic acid, are calculated and reported as sodium bicarbonate and as ammonium carbonate (U. S. P.), respectively. Salicylic acid is calculated and reported as sodium salicylate. Diluents and other constituents than those reported were not determined.

AMMONOL.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid.	Sodium Bicarb.	Ammonium Carb.
50.	25.	20.

ANTIKAMNIA.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Caffein	Citric Acid	Sodium Bicarb.
68.	5.	5.	20.

KOEHLER'S HEADACHE POWDERS.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Caffein
.76.	22.

ORANGEINE.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Sodium Bicarb.	Caffein.
43.	18.	10.

Other constituents said to be present were not determined.

PHENALGIN.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Sodium Bicarb.	Ammonium Carb.
57.	29.	10.

Certain packages of phenalgin were purchased which on analysis did not show ammonium carbonate.

SALACETIN.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Sodium Bicarb.	Sodium Salicylate
43.	21.	20.

We recommend that this report be printed in *The Journal of the American Medical Association.*

Respectfully Submitted,

J. H. LONG, M. S., Sc. D.,
W. A. PUCKNER, PH.G.,
S. P. SADTLER, PH.D.,
J. STIEGLITZ, PH.D.,
H. W. WILEY, M.D., PH.D.

Committee on Chemistry, Council on Pharmacy and Chemistry of the A. M. A.

COUNTY SOCIETIES.

San Joaquin County.

The regular meeting of the San Joaquin County Medical Society was held at the office of Dr. R. B. Knight, May 27, 1905. Members present: Drs. Hoisholt, Davis, Knight, Ladd, Beebe, Langdon, Harry, Sanderson, Arthur and Powell.

A communication was received from the Sonoma County Medical Society in regard to "lodge" and similar contract practice. The resolutions of the Sonoma County Medical Society condemning such procedure were endorsed, and that the San Joaquin County Society recommended to the Committee of the State Society appointed at Riverside to look into this matter, that they endorse similar resolutions.

BARTON J. POWELL, Secretary.

Yolo County.

At the regular meeting of the Yolo County Medical Society in June, the subject of lodge and similar contract practice was extensively discussed. The meeting was largely attended, almost every physician in the county being present, and the consensus of opinion was almost unanimously against this form of practice. The time did not seem ripe for the adoption of specific resolutions covering this matter, and therefore a committee of three was appointed to confer with the various physicians in the county, and endeavor to secure a unanimity of action in reference to this matter. The committee will report at the next meeting of the Society which will be held on October 3d.

FRED R. FAIRCHILD, Secretary.

Monterey County.

To His Excellency, George C. Pardee: At a regular meeting of the Monterey County Medical Society, held at Monterey on April 1, 1905, the following was unanimously adopted:

Whereas, The medical profession is honored by having one of our esteemed members the Governor of our fair state; and

Whereas, He has safely piloted the California ship of state with flying colors through two legislative tempests—his course being marked patriotism, sound judgment and loyalty to his beloved profession; and

Whereas, His recent act in vetoing the vicious anti-vaccination bill, and his unanswerable logic in defense of that action, shows us that he is "not only Geo. C. Pardee, but Dr. Pardee, a physician of integrity"; be it

Resolved, by the Monterey County Medical Society, That we heartily commend the action of Governor Geo. C. Pardee in thus guarding the health, wealth and reputation of our state; and be it further

Resolved, That we consider that the further and continued service of Dr. Pardee in the gubernatorial chair will safeguard the best interests of both our state and profession, and to that end we give him our best wishes; and be it further

Resolved, That our secretary be hereby instructed to send a copy of these resolutions to Governor Pardee, to the California State Journal of Medicine and the local press, and that a copy be placed upon our books.

D. BRUMWELL, Secretary.

San Bernardino County.

Pursuant to adjournment the San Bernardino County Medical Society met in the courtroom of Judge Thomas, Dr. Scott, Vice-President, in the chair; and Dr. Hurley, Secretary, at the desk. Reading of the minutes of the last meeting and their adoption.

A communication from Dr. C. C. Browning, President of the Association, was read by Dr. Hurley, the Secretary. Dr. Browning presented his resignation as President, giving as his reason for the same that he had moved out of the county. The resignation of Dr. Browning was accepted and a vote of thanks tendered him for his able administration of the affairs of this Association. The Secretary was instructed to send Dr. Browning a resolution embodying the sentiment of this Society. A communication was received from Dr. Browning asking for a transfer card from this Association to Los Angeles County Association. The Secretary was instructed to send Dr. Browning such transfer card.

Upon motion of Dr. Mosley, Dr. Howell Tyler of Redlands was elected by acclamation to succeed Dr. C. C. Browning as President of this Association.

Dr. J. M. Hurley read a paper, the title of which was, "Is the Mosquito a Disseminator of Malaria?" Dr. Hurley dissented from the view that the mosquito is a conveyor of malaria, and furnished statistics to back up his views. This paper was discussed by Dr. Ide, who differed from Dr. Hurley, but offered no proofs that the mosquito is a factor in this complaint. Dr. Mosley also discussed the mosquito as a factor, and offered the commonly accepted view of this subject. Also stated that he had cases of malaria that he thought had been brought from the east, and developed after a residence here of some considerable time. Dr. White took Dr. Hurley's view as the most feasible one.

Dr. Mills reported a case of prostatectomy that he had performed, and presented the patient, who had made a good recovery. The doctor also presented the anatomical specimen, which was a very large prostate. Dr. Mills gave his technic of the operation (the suprapubic), and gave his reasons for his choice of this form of operation.

This paper was discussed by Dr. Ide, Dr. Schreck, Dr. Thompson and others. Dr. Schreck expressed the opinion that the operation of prostatectomy as used to-day, is a great blessing. He thought that the constant use of the catheter was a source of great annoyance, as well as great danger. He cited cases to substantiate his views. Dr. Thompson considered the use of the catheter, if care was used, not dangerous to the bladder. Dr. White also discussed this paper. Dr. Tyler gave cases of prostatectomy, and gave it as his opinion that an enlarged prostate should be removed as soon as the patient was unable to void urine without the use of the catheter. Dr. Strong also reinforced this opinion by approving early operations in such cases. The greater delay the less chance for good recovery from the operation.

The application of Dr. W. P. Burk from Highlands was presented for membership.

Adjourned to meet in the Y. M. C. A. Building in Redlands, Wednesday, June 14, 1905, at 2 o'clock P. M.

J. M. HURLEY, Secretary.

Los Angeles County.

The Los Angeles County Medical Association held a regular meeting in the Blanchard Building, Friday evening, May 19, 1905, at 8 P. M.

The minutes of the previous meeting were read and approved.

The first regular paper was read by Dr. Chas. D. Lockwood, and was entitled "The Diagnosis of Surgical Lesions of the Kidney."

The second regular paper was read by Dr. T. Perceval Gerson, and was entitled "A Case of Cystic Degeneration of the Chorionic Villi." Discussion.

First Paper.—Dr. Lobingier: I think that the conservatism with which cryoscopy and some of the newer methods of diagnosis have been received has been justified. These methods have not yet proved themselves. I have not found skiography as definite and reliable a diagnostic measure as I had hoped. It is a valuable aid, however, but its use must not lead us away from the older clinical methods, which are yet our main dependence. In my experience the Cathelin segregator has proved the most satisfactory, although I have found the Harris instrument to do good work, especially in women. I have never favored the catheterization of the ureters, except as a last resort. I am satisfied that much damage may be done by this method. With all our means of diagnosis, there are yet some surgical conditions of the kidney that are very difficult to diagnose.

Dr. Witherbee: It is certainly very important to ascertain the condition of the secretions from both kidneys before operating. I am satisfied that much damage is done to innocent kidneys by neglecting this point. I feel that an exploritory operation is sometimes advisable. I operated upon a case not long ago, which had been under observation for some time, in which the symptoms all pointed to stone and in which I expected to find stone. No stone was found, and the only thing done to the kidney was to anchor it. This was followed, to my surprise, by a complete disappearance of the symptoms.

Dr. Day: Von Jaksch thinks that the microscopic examination of the epithelium from the sedimented urine is of practically no value in determining the location of the lesion. Cryoscopy is much trouble and rather difficult to do, even if the results were reliable. I think it is generally conceded that the use of the Luys segregator is more satisfactory than the catheterization of the ureters.

Dr. Lockwood: I think it will very rarely occur that a diagnosis cannot be made, if all the measures mentioned to-night are carried out. In the event of the diagnosis being uncertain, then probably an exploritory operation is justifiable. In my own experience the findings of the microscope have proven very valuable, especially when the examinations extend over a long period of time.

Second Paper.—Dr. Ferbert: I have seen two cases. One was only discovered upon the operating table. I think that dilatation and curettment is the proper treatment for these cases.

Dr. Hastreiter: This condition was first described by Velpeau in 1827. If a diagnosis of mole is made, the best line of procedure is to clean out the uterus at once. It is better to use the finger than the curette, as the mole has at times a tendency to thin the uterine wall to such an extent that the use of an instrument would be dangerous.

Dr. Lockwood: I have seen two of these cases. I was struck by the appearance of anemia and edema in both.

Dr. P. R. McArthur: I saw a case several years ago in which the mole was expelled at about the third month. It is best not to use the curette on account of the danger of perforation. All cases of vesicular mole should be watched for subsequent malignant trouble.

Dr. Davis: I saw one case followed by a decidua malignum.

Dr. Gerson: The term decidua malignum is a misnomer. The proper term is chorion carcinoma.

Adjourned.

* * * * *

The Los Angeles County Medical Association held a regular meeting in the Blanchard Bldg., Friday evening, June 2nd, 1905 at 8 P. M.

First Paper, "Circumcision," Dr. George E. Abbott.

Second Paper, "Albumen in the Urine of Apparently Healthy Children; Renal and Cardio-vascular Changes in Children as seen in Southern California," Dr. William A. Edwards.

Third Paper, "The Tuberculosis Problem in Los Angeles," Dr. Geo. H. Kress.

Discussion: First Paper, Dr. Lazard: I question whether there is ever such a thing as a normal prepuce. I do not believe in the splitting operation. All circumcisions should be complete. The complete circumcision is an important measure in reducing the chances of syphilitic infection and should be performed early in life on all males. The development of a true skin upon the glans is the important thing. I have seen quite a number of the ritual circumcisions and the instrument generally used is a good one. Dr. L. D. Johnson.: In putting in the sutures, I use several interrupted catgut sutures and leave the ends about two inches long; these ends are used when the dressing is applied to hold it in place. A strip of gauze is carried around the penis along the line of the incision and the catgut ends are carried one end on either side of the gauze strip and tied about it. On the fourth day the sutures are snipped and the whole dressing removed. Dr. Cole: The prophylactic result of this operation, as mentioned by Dr. Lazard, is a very important feature. The prophylaxis is more efficient for syphilis than for gonorrhea. On the ground of prophylaxis alone perhaps we are justified in making all operations complete. My experience has been that stretching the opening of the prepuce is very unsatisfactory. Dr. Day: I have used the method of dressing described by Dr. Johnson and find it quite efficient, but in adult patients it is necessary to use a longer strip of gauze than is actually needed to encircle the penis otherwise in case of erection occurring, it may be too tight and cause constriction; the strip should be left a little redundant between the stitches. Dr. Emerson: The Mohammedans do this operation on all males at about the eighth day. The midwife or any one handy does it and the results are good. I think all parents should be advised to have their boys circumcised a week or 10 days after birth. There are many reasons for doing it at this time; no anesthetic is needed, there is usually a competent nurse in charge at that time to attend to the dressing and the results are good. I have seen a case in which the child was born without a prepuce. Dr. Ferbert: A few years ago I saw a case of natural circumcision.

Second Paper. Dr. Elbert Wing: It is certainly easy to become confused by the intricacies and complexities of some of the newer methods of diagnosis. I believe that there is such a thing as a too great refinement of methods for every day use. In testing urine, the old and simple methods are the best for most of us. I am inclined to believe that these cardio-vascular troubles come to children and adults from two principal causes; first, poisons from the infectious diseases and from medicines; and second, chemical poisons from food products and as the result of perverted digestion. The neurotic element that has been referred to is something beyond my ken. Dr. Black: I have wondered for many years as to the real value of urinary examinations as generally done. The urine must be perfectly clear in order to test for albumen. Dr. Day: I believe the trichloracetic acid test a good one. While it does precipitate mucin, it does not do so immediately. The albumoses are found usually with the infectious diseases or with retained pus. Dr. Wernigk: I believe a certain amount of nitrogenous food can be given to these patients with benefit. The urea test is useful in keeping track of the amount of nitrogenous food that is proper. Distilled water on an empty stomach I am satisfied will ease catarrh of the mucous membrane.

Third Paper. Dr. Harris Garcelon: The health office of this city has at present 3 methods of estimating the number of tubercular cases in the city, all of them very imperfect. First, notification by physicians, which is most incomplete, very few cases being reported; second, sputa sent in for examination; and third, death reports. In the matter of preventing the spread of this disease to the healthy there are 3 things in which the health office is especially interested; first, the destruction of the sputa; we have an anti-spitting ordinance in force in this city at present, but it is almost impossible to properly enforce a good ordinance of this kind unless proper spittoons are provided on the streets and in all public buildings and places; second, proper segregation of these cases, and third, registration of lodging and rooming houses and regulation of the size of rooms and the number of occupants allowed to each, regulations regarding light, ventilation, care of bedding, etc., and the care of dishes, towels, napkins, etc., in restaurants and barber shops. Regarding fumigation, most of it is done with formaldehyde gas at present; the dry sulphur fumigation is not effective and we have no means of using the steam-sulphur method. This city needs badly a portable steam autoclave for this purpose and an ordinance compelling people to fumigate or requiring them to allow the city to do it. Adjourned.

RAYMOND G. TAYLOR, Secretary.

MEDICAL SOCIETIES.

State Homeopathic Society Meeting.

The State Homeopathic Medical Society met at Santa Barbara May 10, 11, 12, and had a very good meeting. The officers elected for the ensuing year were: President, Dr. Thos. G. McConkey; Secretary, Dr. Guy E. Manning; Board of Examiners, Drs. Chas. L. Tisdale and E. C. Buell. Dr. Tisdale presented a report showing the work of the board for the past year, which was received with applause.

The San Francisco Society of Eye, Ear, Nose and Throat Surgeons.

Regular meeting held May 18, 1905, the president, Dr. K. Pischel, in the chair.

Dr. L. C. Deane spoke upon "The Misuse of Atropin in Eye Diseases." He pointed out the fallacy of the indiscriminate use of that drug, and emphasized the fact that when used, the smallest possible quantity to produce the desired effect was all that was necessary. He recommends scopolamin in a number of cases, and particularly so in refractiou.

Dr. F. B. Eatou agreed that the speaker had taken a very "happy medium," said that he was equally cautious in using the drug, even in diseases of the uvea, providing there was increased teusion. He protested against the use of strong atropin solutions in decimititis, finding that the trouble was made worse, and spoke of the success attending the long continued use of weaker solutions. In reference to the cycloplegic use of the drug, he said: "I think more oculists than are generally supposed are in favor of complete cycloplegia. The avoidance of a stroug cycloplegia in young persons prevents getting strong enough glasses on the patieut. I feel that it is more logical to get at the absolute refractiou of a patient who is under 35 years of age, and frequently of those much over that age. The doctor spoke of using 1-10% solution of scopolamin. I always use a ¼% solution of hyoscine hydrobromate, using one drop three times a day. I give the bromides at the same time, and usually instill a few drops of epinephrin and cocain, findiug that the cocain enables me to get along better when the conjunctiva is irritated."

Dr. Martiu has seen cases where the prolonged use of the weaker solutions has had but little effect, while a strong one, say 4%, if carefully used, will produce immediate and lasting effect. He does most of his refraction with euphthalmine, i. e., in adults, and gets satisfactory results. He finds it advantageous to have the patient fix a small light 20 feet distant, during retinoscopy.

Dr. W. Scott Franklin—I would like to say a few words against the practice of putting a drop of any mydriatic into an eye without first examining the fundus and ascertaining the condition of the nerve-head. A number of cases of acute glaucoma have been brought on, in eyes predisposed, by this lack of caution. In regard to the use of strong solutions of atropin, I at times use the concentrated powder, and have no ill results, as the patient is told to compress the canaliculi with the tip of his finger, thereby avoiding the danger of too rapid absorption.

Dr. K. Pischel thinks that the conjunctivitis is caused principally by the use of old solutions. He has found that in some cases of iritis the atropin solution has not affected the pupil until after the application of leeches.

Dr. Deane, in closing the discussion, said that the idea of his paper was against the promiscuous use of atropin. He directs his patients to return after the expiration of 4 days when using scopolamin as a mydriatic, and thinks that the difference of opinion regarding the strength of the solution depends upon the mode of application, etc. He always warms the drop before instilling it, and does not use cocain or atropin solutions after they are a day old.

The selection of the anesthetic in ear, nose and throat operations was the next subject, the discussion being opened by Dr. Martin.

Dr. Card believes that the safety of an anesthetic depends greatly upon the person giving it. He has had some cases, in adults, where during the administration of ether spasm of the glottis occurred, and it was necessary to change to chloroform.

Dr. Eton fears chloroform through personal experience. He has never seen a person in danger from ether, but on many occasions has had scares during the administration of chloroform. The doctor deplored the fact that the giving of anesthetics was not taught in colleges. He objects to chloroform during adenoid operations, as here it is particularly dangerous, owing to the obstruction to breathing. He said that the bromide of ethyl is dangerous compared to the chloride, and for a short anesthetic he preferred nitrous oxide.

Dr. Franklin—It is surprising how the nose aud throat differ in their susceptibility to cocain. I have known of cases where but a few drops of a 2% solution was used in the nose, the patient collapsing. In the throat one may use up to 20%, even in children. In the nose it is rarely safe to use over a 4% or 5% solution, and in a spray over ½%.

Dr. Deane—I have used chloroform in the majority of my adenoid cases, as the most ready anesthetic, and easily administered, and I have never had any trouble with it.

Dr. Fredrick—Having received my medical training abroad, where chloroform is used almost exclusively, I have always used it myself, with very few exceptions. Using prolonged narcosis for these short operations, however, seems to me like shooting at a sparrow with a cannon, and I therefore welcome the idea of the shorter narcosis, such as nitrous oxide, which is ably administered by most dentists. With this narcotic it takes 4 or 5 minutes from the time the patient is put on the table until he is thoroughly awake and ready to be dressed, 20 to 30 seconds being, as a rule, sufficient to produce enough anesthesia for the operation.

Dr. Martin—The gist of my paper is, you may see, the plea for the recognition of the professional anesthetist. That we, as operators, should be freed, as far as possible, from the responsibility of the anesthetic. I have seen 3 deaths from chloroform during operation, two of elderly people and one of a girl of 14, but have seen none occurring during adenoid operations. I do not use local anesthesia in children. In adults I use 12½% solution of cocain applied locally on cotton for 15 to 20 minutes, and for septal work or opening the antrum have found a 5% solution applied to either side with a current of 5 m. a. work quickly and effectively.

W. SCOTT FRANKLIN, Secretary.

SAN FRANCISCO POLYCLINIC GATHERING.

Regular meeting for April, the president, Dr. Ryfkogel, in the chair. The following cases were reported by Dr. Martin Regensburger:

Mrs. M. P. Aged 43, housewife. U. S. Ten years ago and two years after birth of last child, a hard spot showed itself between third and fourth toes of the right foot, somewhat as a soft corn might begin, which remained there about 2 months. Some months after she had severe pains in the head, arms and legs, which were worse at night, followed shortly by destructive lesions beginning first on legs and gradually involving the entire body. One year after commencement of this trouble, had ulcers on palate. Three years ago she became very hoarse, and was troubled with dyspnea. One year later trouble began on her nose. She was sent to me by a colleague to be X-rayed for an epithelioma. The nose had the appearance of a large, red, granulating tumor, the size of a baby's fist, and looked like a large rhinophyma. The previous history indicated that it was of syphilitic origin. She was placed under treatment with iodid of potash, beginning with 20-grain doses 3 times a day, gradually increasing the same within one month to 40-grain doses. The tumor has almost disappeared, leaving only a slight hypertrophied condition. The treatment will be continued indefinitely.

Mr. E. W., dishwasher, born in Germany, aged 61, single. Came to the polyclinic with small tumors all over the body and in scalp, ranging in size from that of a small pea to that of a chicken's egg, mingled with cysts; probably 1,000 tumors in all. Height of patient, 5 feet, of stunted growth in general; weighs 128 pounds. No other history could be gotten from the patient. Diagnosis, fibroma moluscum. (Figures 1 and 2.)

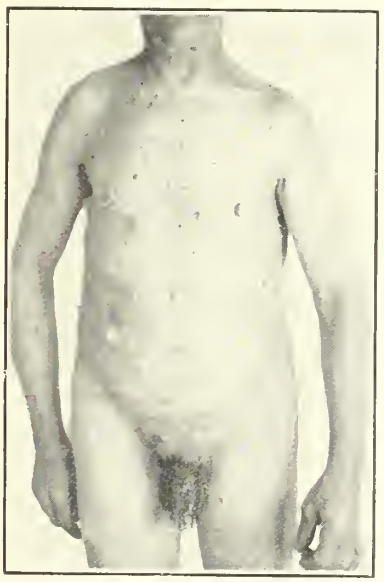

FIG. 1.

Mr. J. S., 33 years of age, laborer, single. Small tumors all over body last 4 or 5 years, ranging in size from pinhead to large pea; also large pouch under right scapula, hanging down like a teat. Diagnosis, fibroma moluscum, and dermatolysis.

Mrs. W. R., housewife, born in England, aged 45, married. Intercourse was followed in one month by pregnancy. Two months after, artificial miscarriage. Patient insists

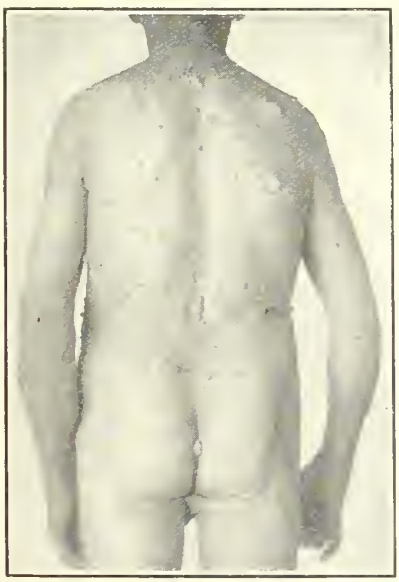

FIG. 2.

that all her trouble followed the miscarriage. This was 8 years ago. Six weeks after miscarriage her throat was very sore, also itching and burning about the vulva. She consulted a physician and found a cauliflower growth in the throat and warts about the vulva. Began treatment, and kept it up faithfully for a year and a half. At that time she thought she was entirely cured. Returned 6½ years after stopping treatment with destruction of the soft palate the size of a 25-cent piece, which has been very rapid, occurring in only 3 weeks, accompanied by deafness, for which trouble she had been using Garfield tea and Christian "science." The perforation was directly above the uvula, which was covered with a thick yellow-greenish pus. Treatment began with 15 grains iodid of potash 3 times a day on March 1, 1905, which dose has been increased, and the patient has improved rapidly. Diagnosis, tertiary syphilis.

Mrs. E. D., domestic, Switzerland, 26 years, single. Trouble began 8 years ago in Switzerland as a small papule on right cheek near nose, enlarging very slowly so that at the end of 4 years it was only the size of a dime. This time edges were slightly elevated, somewhat reddened, and center consisted of a white enemic patch. Two years after her arrival in this country it grew somewhat more rapidly, involving almost the entire nose. The lesion did not itch, was tender to the touch, and at menstrual periods became quite red and more painful. Present condition, red, circumscribed circular patch slightly elevated at edges, involving entire nose, and communicating with patch on right cheek, which is about the size of a 25-cent piece. Under a 15% resorcin paste the redness disappeared very rapidly, leaving a large, white center, surrounded by thin, red margin, which was slightly elevated, in which condition we find her at present. Diagnosis, lupus erythematodes.

Mr. G. H., waiter, born in Hungary, aged 25 years, single. Sore on right side of abdomen just above the pubic region for 2 months; began as a papule, was scratched, crust formed, ulceration increased, came to the clinic on April 17, 1905, with an oval ulcer 5 cm in height and 3 cm in width, to right of median line in suprapubic region. Edges of ulcer somewhat elevated, bluish red in color, slightly indurated, but not undermined. Edges slope gradually to a shallow base, which is filled with rather large, pale, red granulations right inguinal glands, enlarged. Diagnosis was doubtful. Applied sublimate 1 to 3,000 locally,

FIG. 3.

and within 2 weeks the ulcer was healed over. Blood examination was negative. On May 1st the patient came to clinic and complained that the operation on his ear (blood examination) had brought out an eruption all over his body. On inspection found typical roseola all over body, with beginning angina and pains in head for the last 3 days. Diagnosis, hard chancre. (See Fig. 3.)

Dr. Henry J. Kreutzmann presented a specimen of double tubo-ovarian cyst with uterus seat of two small fibroids, removed by abdominal section. Patient 42 years of age; was taken with pelvic peritonitis 10 months ago. Previous health had always been good. She had developed a pelvic abscess, which had been opened by another physician 8 months ago. This abscess did not heal. Patient came with a profuse discharge from the fistulous duct in the Douglas cul-de-sac; two large masses on the side of the uterus were also present; the uterus was enlarged. Abdominal section was made and the masses removed without rupturing. Uterus also removed. This was a typical case of tubo-ovarian cyst.

Dr. C. M. Cooper reported some rare clinical cases, and showed some X-ray plates illustrating peribronchial glands, gallstones, kidney abnormality, etc. A combined protection screen and orthodiagraphic apparatus was also demonstrated.

Dr. Cullen F. Welty showed a case of saddle-nose of traumatic origin, corrected by bone implantation.

A piece of bone about half the diameter of a lead pencil and an inch and a half long was taken from the patient's tibia and transplanted in the nose. The scar is scarcely perceptible, and the deformity almost entirely corrected. A full report of the case will be made at the Portland meeting of the American Medical Association.

Dr. C. G. Levison reported the following interesting case:

A. L., 24 years of age, salesman, single. Family history, father died of "Morbus Brightii," uncle and one infant brother died of tuberculosis. No history of previous illness. Recent illness began in November, 1904, with a dull pain on the instep of the left foot, at the point where the common extensor passes over the instep, to go to the smaller toes, just as it emerges from beneath the annular ligament. The condition simulated a tendo vaginitis, but this diagnosis was not made.

The ankle joint was quite uninvolved, as movement of the joint was normal. Under the usual remedies, salicylates and local applications, there was no relief experienced, and a few days later the reddened area presented evidence of the presence of pus. At this time there was no sign of a general involvement of the foot. An incision was made and a small quantity of pus was evacuated. Temperature and pulse normal. Pain quite severe. With this evacuation of pus, there was no cessation of the pain, but on the contrary the foot and lower part of the leg became swollen, and edematous, and more painful; temp. 101°. One week later the incision was enlarged, but no more pus was evacuated. Patient was suffering intensely. There was no apparent involvement of the ankle joint for the patient was able to move it without pain. Foot swollen and edematous; temp. 102°. At this time it was evident that we had a deep-seated bone disease to deal with, but no thought of an ankle involvement was considered. Further exploration was carried out by incising the foot on its inner side, below the malleolous. The finger was introduced into this incision, and the area palpated. Nothing could be felt, and the exploration would have been discontinued had it not been that it was positively known that some deep-seated trouble was present. The finger was then forced under the tendons, on the side of the foot on its inner surface, when it at once penetrated into the joint. This position, where the joint was entered, was on the inner posterior surface, while the point where the first incision was made was situated on the outer anterior surface. The finger at once came upon dead bone, and without much difficulty the entire lower end of the articulating surface of the tibia was enucleated. It was recognized that more of the tibia was diseased, but as the operation was being carried out on the bed, at home, nothing further was done.

The most unusual feature of the condition at this time was that there was absolutely no apparent involvement of the ankle joint, as there was no joint crepitus to be elicited, and movement was comparatively normal; temp. 103°. The patient was then removed to the Mount Zion Hospital for radical operation. The foot and leg were much reddened and badly swollen; the swelling extended almost to the knee, and involved the crest of the tibia. Condition of the patient poor. Pulse 120; tongue dry and brown; pain severe. An incision was made over the crest of the tibia, extending from the tubercle down over the instep. The periosteum was laid back, when it was at once seen that the tibia below its middle had been perforated by a mass of dark-colored granulation tissue, which appeared sarcomatous. Following the incision downward the lower end of the tibia which had not been removed, was exposed. This was seen to be completely disorganized. The entire anterior surface of the tibia was found to be carious, and was scooped out quite easily. With this laid bare, further examination showed the entire bone in its lower half to be completely necrotic. The astragulus seemed to be unaffected. It was decided to remove the lower half of the tibia, or, at such a point where the bone was found to be normal. The periosteum was denuded from the lower half of the tibia, and the bone severed with the Gigli saw without difficulty. Bleeding was so profuse that the periosteum could not be brought together after the method of Nichols, but had to be packed. Convalescence was uneventful. A culture was made from the area, but on account of an overheating of the incubator the culture was destroyed. After 5 months, the examination of the foot showed a decided improvement over the flail-like condition which existed for several months. This was confirmed by the radiograph, which revealed a picture of new bone extending downwards from the upper end of the tibia and growing upwards from below. The strip of periosteum connecting the bone is visible as well. It is intended to exhibit the growth of this bone each two weeks by means of the radiograph, which will be reported and demonstrated in extenso within one year. The microscopical examination of the bone and granulation tissue revealed a chronic osteomyelitis, with no evidence of tuberculosis or sarcoma.

The interesting features of this case were, the total absence of pus excepting at the first incision, the enormous involvement of medullary bone tissue with so little constitutional disturbance in its earlier stage, the involvement of the lower end of the tibia without affecting the movements of the ankle joint, and lastly the great involvement of bone in a subacute osteomyelitic process, of such a short duration.

THE CALIFORNIA ACADEMY OF MEDICINE.

Regular meeting, held March 28, 1905, the President, Dr. Dudley Tait, being in the chair.

Intra-Thoracic Tumor.

Dr. W. F. Cheney demonstrated a patient who had suffered from pain in the side, cough, hemoptysis, loss of voice and emaciation. There was some dullness under the upper end of the sternum and a paralysis of the left vocal cord. A tumor in the epigastrium, together with the characteristic stomach analysis of gastric carcinoma, rendered it very probable that the signs in the chest were due to a metstatic tumor. The X-ray plates, demonstrated by Dr. Lehmann, favored this diagnosis.

Typhoid Perforation.

Dr. Dudley Tait demonstrated a patient who had recovered from a typhoid perforation. The symptoms of perforation had been very typical—sudden pain about the umbilicus, vomiting and local tenderness, with muscle spasm. Operation done under Schleich's local anesthesia. The edges of the perforation were so friable that they would not hold the sutures, and so an artificial anus was therefore formed. Patient has profuse diarrhea for three weeks after the operation, at which time new symptoms of inflammation developed and a pelvic abscess was opened. Patient has now practically recovered. Most cases in which an artificial anus has been formed have died, and the speaker believes that in another such case he would do an enteroanastomosis.

Dr. Huntington stated that this is the third successful operation for typhoid perforation within the past six months in San Francisco. In order to get good results the surgeon must be willing to operate, even though only a fair suspicion of perforation exists, for if he wait for an absolutely certain diagnosis many patients will be lost. The best results are obtained when the operation takes place within twenty-four hours after the onset of symptoms. The perforation should be closed if the edges of peritoneum are intact.

Extrophy of the Bladder.

Dr. H. M. Sherman demonstrated a child who had been operated upon for extrophy of the bladder. The ureters had been catheterized and then dissected out, together with a button of bladder mucosa. They were then drawn through a slit in the rectal mucosa. Within twenty-four hours the child expressed a desire to urinate, and he now passes his feces and his urine separately by rectum. It is important that the catheter should not be left in place after the completion of the operation, for this seems to increase the dangers of an ascending infection. The mouths of the urethra and of the ejaculatory ducts are now visible at the base of the penis. An attempt will be made later to restore the pendulous urethra.

Dr. Tait said that the greatest danger connected with transplanting the ureters into the rectum is an ascending infection. If the catheters are not left in place after the operation, however, this danger seemed to be very small.

Fractures of the Metacarpal Bones.

Dr. Raymond Russ said that these are much more common than is generally believed, and that but for the X-ray many of them would pass unrecognized. Of his 27 cases, 26 were in men. In most cases only one bone was broken, and in no case was the fracture a compound one. Two Bennett's fractures and one spiral fracture were included in the series. The most satisfactory method of putting up these fractures consists in the use of slate pencils as coaptation splints on each side of the fractured bone, two being in front and two behind. These splints extended from the metacarpal base to the middle of the first phalanx, and they were secured in place by adhesive strips. The finger was then forcibly extended, and this position maintained by adhesive plaster wrapped around the finger and the ends of the slate pencils.

Dr. H. M. Sherman believes that Dr. Russ's method of dressing these fractures is a very satisfactory one, and that it enables us to exert a certain amount of traction. The loss of the knuckle that follows the shortening of the broken bone is then less likely to take place.

Dr. T. W. Huntington said that the method could not be applied to compound fractures.

Papilloma of the Colon.

Dr. T. W. Huntington reported the case of a woman 66 years old who had suffered from pain in the right side, flatulence, increasing constipation and bloody mucus in the stools. An orange-sized tumor could be felt in the right flank. The ascending colon and about two inches of the ileum were removed and a lateral anastomosis was performed. The tumor proved to be of a papillary form, but there was some question as to its malignancy, even when examined microscopically.

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Regular meeting, held April 25, 1905, the President, Dr. Dudley Tait, being in the chair.

Epidermolysis Bullosa Hereditaria.

Dr. Howard Morrow presented a child 10 years old showing the above condition. Whenever he is bruised a vescicle or bulla develops. These have been most numerous about the feet and legs. They are due to an accumulation of serum between the layers of the epidermis. The child also has sweating palms and soles. His mother suffered from a similar condition as a child, and another brother has it.

Dr. Montgomery stated that it is important to differentiate this condition from pemphigus, for the former is relatively harmless. The use of belladonna in one of his cases had seemed to control the formation of vescicles.

Autopsy; Case of Leukemia Treated by the X-Ray.

Dr. W. F. Cheney made a final report on the case of leukemia previously reported. At that time the patient had 60,000 leukocytes. Somewhat later, even while under treatment, he began to run down, and, becoming discouraged, he discontinued the treatment. In November he had lobar pneumonia, but his blood picture did not change during this time. Died on March 5, 1905. The autopsy showed the ordinary gross and microscopical changes of leukemia.

Dr. Geo. Evans believed that the treatment had been discontinued too soon in this case, and that it could hardly be cited as one demonstrating the inefficacy of the X-ray treatment. His own cases previously reported are still under treatment and are doing well.

Dr. A. W. Hewlett stated that he had recently had a case of leukemia under treatment with the X-ray. The patient had been treated with arsenic and quinine previously without any apparent benefit. Under X-ray treatment the leukocytes have fallen from about 350,000 or 400,000 to about 75,000, and the hemoglobin has risen from 48 per cent to 74 per cent. At present, about three months after treatment, the condition seems to be almost stationary. The spleen has become much smaller, but it is still much enlarged. Treating the spleen seemed to be more effective in reducing the number of leukocytes than was treating the long bones.

Dr. Lehmann said that he prefers to treat leukemia by small doses of the X-ray over a long period of time. Some cases, reported in the literature, have improved very remarkably within a short time, but these seem to be the very ones that are most likely to die suddenly. High tension tubes are used.

The Effect of Atropin Upon a Pulsus Bigeminus.

Dr. A. W. Hewlett demonstrated some tracings taken from a patient who had a pulsus bigeminus. He was given a large dose of atropin. At first the pulse became more rapid, but the interval between the normal beat and the extrasystole remained unchanged. Then the pulse became irregular and the extrasystoles disappeared. Finally the beat rate gradually slowed down, but the extrasystoles did not reappear, and the pulse has therefore become converted from a continual bigeminal pulse into a perfectly regular, apparently normal pulse.

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Regular meeting, held May 23, 1905, the President, Dr. Dudley Tait, being in the chair.

Bilharzia Disease in Porto Ricans.

Dr. Herbert Gunn reported two cases of Bilharzia disease in Porto Ricans. This disease is quite prevalent in some countries, especially in Egypt and other parts of Africa. British soldiers, returning from South Africa, have probably disseminated it more or less throughout the British possessions. Hitherto only six cases have been reported in the United States. Of these four were probably imported. The other two, supposed to have originated within this country, are not certainly examples of Bilharzia infection. Manson discovered an infection in a man who had lived in the West Indies, and he believes that this patient must have contracted the disease there. This patient had not been in Porto Rico. No other reference to the occurrence of Bilharzia infection in the West Indies could be found in the literature.

Both of the patients whose histories were here reported had come from Porto Rico and had resided for a few months in the Hawaiian Islands. Yet there is no reason to believe that the disease was contracted in the latter place, and it seems much more probable that it was contracted in Porto Rico. Both patients were also infected with uncinaria duodenalis, and the Bilharzia eggs were found in their stools accidentally. So far as could be told, they presented no symptoms directly attributable to the latter infection. The eggs found in their stools were quite typical, being about .16 mm. long by .06 mm. wide, and with lateral spines. When Bilharzia eggs appear in the urine, they differ from those that appear in the feces, in that the spine is not lateral, but terminal. The cause of this characteristic difference is not known. Possibly there are two varieties of worms.

The adult worms are one to two centimeters long and are bisexual. They live in the portal vein or its branches, or more rarely in the veins of other parts of the body. Several hundred worms may be present. The life cycle of the worm outside of the human body has never been worked out, and consequently we are quite ignorant as to the manner of infection. Many believe that it takes place through drinking water or during bathing.

As in these cases just reported, the patient frequently presents no symptoms that are referable to the infection. At other times malaise, pains in the back, loss of weight and strength, eosinophilia, etc., are present. If the eggs appear in the urine they may cause hematuria and the symptoms of cystitis. If they appear in the feces the patient may suffer from dysenteric symptoms.

Dr. Geo. Blumer suggested that the lateral spine assisted the eggs in penetrating the tissues, in that it allowed them to travel in only one direction. The cases that have been reported as originating in the United States were probably not examples of Bilharzia infection.

Dr. C. M. Cooper stated that Bilharzia disease is very common among the Boers, and much more frequent there among the boys than among the girls. This is supposed to be due to the fact that the boys bathe in streams, etc. Hematuria is there so frequent that many of the more ignorant people believe a boy is not healthy unless he passes bloody urine occasionally.

Adhesive Pericarditis.

Drs. Moffitt and C. M. Cooper reported that they had found Graefe's sign present in many diseases apart from exophthalmic goitre, in typhoid fever, trichinosis, tuberculosis, starvation and many other

chronic ailments. It was frequently accompanied by Stellwag's symptom, though not always. Sometimes it may be that it is the first symptom of Grave's disease, but in many cases it appeared to have no significance. One patient showed a greater or less degree, apparently depending on the administration of potassium iodid. After working at this subject it was found that Sharpey had first drawn attention to the occasional presence of this sign in people who had no other symptoms of exophthalmic goitre, and that the subject had been similarly worked out by Flatow, the results, however, having apparently escaped the notice of American writers.

Dr. C. M. Cooper stated that too much stress must not be laid upon the Broadbent sign in the diagnosis of adhesive pericarditis. He has seen this sign a number of times in patients with hypertrophied hearts, as well as in thin patients whose hearts were beating very forcibly. These observations have, in a number of cases, been confirmed at autopsy. The retraction of the intercostal spaces in these cases usually ascends during expiration and descends during inspiration, thus demonstrating that it is due, not to a direct tug of the diaphragm upon the chest wall, but to a negative pressure within the chest cavity caused by the contraction of the heart. The speaker has been able in a number of cases to demonstrate the pericardial adhesions on X-ray photographs.

A. W. HEWLETT, Secretary.

AMERICAN SURGICAL ASSOCIATION.

Meetings Will Be Held in the Hotel St. Francis,

Corner of Powell and Geary Streets, San Francisco, Wednesday, July 5th, Thursday, July 6th, Friday, July 7th, 1905. Sessions begin at 9:30 A. M. and continue until 1 P. M.

WEDNESDAY MORNING.

Address of President, at 10 o'clock.
George Ben Johnston, M. D., Baltimore, Md.

"End Results in Surgery of the Kidney."
A. Vander Veer, M. D., Albany, N. Y.

"The Value of Statistics in the Study of Cancers and Tumors."
Theodore A. McGraw, M. D., Detroit, Mich.

"The Radical Cure of Femoral Hernia."
Wm. B. Coley, M. D., New York, N. Y.

"Excision of Portions of the Chest Wall for Malignant Tumors."
Emmet Rixford, M. D., San Francisco, Cal.

"The Management of the Pleura in Inveterate Empyema."
Joseph Ransohoff, M. D., Cincinnati, O.

"Non-Parasitic Cysts of the Spleen."
Chas. A. Powers, M. D., Denver, Col.

"Excision of the Bladder for Malignant Disease."
N. B. Carson, M. D., St. Louis, Mo.

"The Status Lymphaticus."
Roswell Park, M. D., Buffalo, N. Y.

"Excision in Congenital Posterior Dislocations of the Humerus."
John B. Roberts, M. D., Philadelphia, Pa.

"Patent Urachus." Review of the Cases Reported. Operation on a Case Complicated with Stone in the Kidney.
George Tully Vaughan, M .D., Washington, D. C.

THURSDAY MORNING.

Surgery of Lesions of the Spinal Cord.

a. Traumatisms. b. Inflammations. c. Neoplasms.

"Injuries of the Spine."
Herbert L. Burrell, M. D., Boston, Mass.

"A Case of Suture of the Spinal Cord Following a Gunshot Injury Involving Complete Severance of the Structure."
George R. Fowler, M. D., Brooklyn, N. Y.

"Inflammatory Conditions of the Spinal Column."
De Forest Willard, M. D., Philadelphia, Pa.

"Paraphlegia in Pott's Disease in Children."
N. P. Dandridge, M. D., Cincinnati, O.

"Neoplasms. Their Location and Diagnosis."
Richard H. Harte, M. D., Philadelphia, Pa.

"A Report of Three Cases of Laminectomy for Neoplasms of the Spinal Cord With Good Results."
J. Collins Warren, M. D., Boston, Mass.

"Surgery of the Peripheral Nerves, Experimental and Clinical."
J. B. Murphy, M. D., Chicago, Ill.

"Spina-Bifida."
J. E. Moore, M. D., Minneapolis, Minn.

"A Review of the End Results in Cases of Exophthalmic Goitre Treated Surgically."
Thos. W. Huntington, M. D., San Francisco, Cal.

"The Advantage of Surgical Intervention in Cases of Exophthalmic Goitre, With Illustrative Cases."
W. G. Macdonald, M. D., Albany, N. Y.

"Our Noble Heritage."
J. Ewing Mears, M. D., Philadelphia, Pa.

"Further Experiences in the Radical Operation for the Cure of Aneurism by Endo-aneurismorrhaphy."
Rudolph Matas, M. D., New Orleans, La.

"The Treatment of Tumors, Based on Their Relative Malignancy, and the Prognosis of the Various Pathological Varieties."
Jos. C. Bloodgood, M. D., Baltimore, Md.

FRIDAY MORNING.

"A Comparison of Methods of Performing Gastro-Enterostomy."
Wm. J. Mayo, M. D., Rochester, Minn.

"New Methods and Applications for Uniting the Hollow Viscera."
E. Wyllys Andrews, M. D., Chicago, Ill.

"A Case of Intussusception Which Became Spontaneously Reduced After Provisional Enterostomy. Remarks."
Maurine H. Richardson, M. D., Boston, Mass.

"The Management of Critical Cases of Intestinal Obstruction, With Report of Cases. a. Resection for Mesenteric Thrombosis; b. Resection for Gangrenous Intussusception; c. Resection for Cancerous Obstruction."
J. W. Elliot, M. D., Boston, Mass.

"Perforation of the Gall Bladder."
Archibald MacLaren, M. D., St. Paul, Minn.

"Perforation of the Gall Bladder, Caused by Pressure of a Stone, With Free Escape of Bile Into the Peritoneal Cavity. Laparotomy Recovery."
E. W. Walker, M. D., Cincinnati, O.

"Constriction of Duodenum Below the Entrance of the Common Duct and Its Relation to Disease."
A. J. Ochsner, M. D., Chicago, Ill.

"Results of Experiments in Asepsis."
Dudley P. Allen, M. D., Cleveland, O.

Unfortunate Accident.

Dr. Asay very kindly sends the JOURNAL the following news items from San Jose:

On Monday night (29th inst.) while returning from a visit to a patient, Dr. Lincoln Cothran was thrown from his wheel and suffered a fracture of olecranon process of left ulna. He was also considerably bruised in other parts, but suffered no internal injury. Drs. Burns, Caldwell and myself are attending him. He will probably be confined to his bed for the next ten days.

At the same time, but in another part of town, Dr. W. T. McNary was run into by another cycler and thrown from his wheel, escaping without any fractures, but with severe contusions of right arm with slight lacerations.

Dr. Elizabeth Gallimore, who was seriously injured three weeks ago is now convalescing. She has the sympathy and best wishes of all the profession in this locality.

PUBLICATIONS.

The Surgery of the Heart and Lungs. A Review and Resume of Surgical Conditions Found Therein, and Experimental and Clinical Research in Man and Lower Animals, With Reference to Pneumonotomy, Pneumonectomy and Bronchotomy, and Cardiotomy and Cardiorrhaphy. By Benjamin Merrill Ricketts, Ph. B., M. D. The Grafton Press, New York, 1904.

The researches of the past decade, bringing to light, one after another, new surgical problems in many of the more important visceral diseases, have beeu so surprising, so definite, so full of the promise of fruitful outlook upon hitherto untrodden fields, that we have scarcely yet had time to recover from the glamour of new light or to realize, in the urgency of fresh practical questions the rich possibilities for original study of other equally fascinating themes. This is notably so in the case of surgical cardiac affectious.

Since the early observation of Ambroise Paré that wounds of the heart are not always immediately fatal, attention has from time to time been given to the surgical aspects of these conditions. Indeed, so early as 1648 Riolan advised drainage of pericardial effusions; but it was not, however, until the beginning of the last century that this was actually practiced. It took a little less than one hundred years to pass from the pericardium to the epicardium, for it was only in 1896 that Rehn reported the first successful case of stab-wound of the heart treated by suture. Roberts, however, almost 25 years ago, had determined by experiments that puncture of the heart, with suture of it, would become a therapeutic measure.

Thus it will be seen that we are as yet but on the threshold of cardiac surgery; nevertheless, sufficient material is at hand, partly clinical, partly experimental, to warrant the publication of a critical review of the subject. Three years ago there had already appeared a very complete aud suggestive resumé by Drs. Terrier and Reymond, of Paris, and now we have a pretentious work by Dr. Ricketts, of Cincinnati. The last named book, the subject of this review, is a large volume of almost 500 pages, more than half of which is devoted to the surgery of the heart. The remainiug portion consists of various sections upon pulmonary surgery. Of the 271 pages devoted to the heart, almost one-half, or about 125 pages, are taken up with bibliography.

The human and comparative anatomy of the heart is considered in the opening chapter. While the matter discussed is interesting enough in itself, we are somewhat skeptical as to the appropriateness of some of it in a work of this character. How much better it would have been to have cousidered somewhat fully the cardio-thoracic topography as Guibal does, for instance, in his recent article in the *Revue de Chirurgie*. It is, of course, true that a knowledge of the comparative anatomy and physiology of the heart is both important and interesting, but these are so much more fully and clearly discussed elsewhere that we cannot but deplore the insertion of this to the exclusion of other anatomical considerations such as suggested.

Chapter II gives a brief historical account of the experimental researches. We are glad to see reference made to the studies of Kronecker and Schmey, who discovered that the heart might be punctured with but little interference of its action except when a spot in the inter-ventricular septum was touched, when immediate death ensued (Kronecker's coördination centre). But it does not seem to us that the work of Elsberg is given the prominence that its thoroughness and completeness demand. His conclusions, which we do not find here or in other portious of the book, may be briefly summarized as follows: That the heart may be grasped with the hands or forceps and greatly compressed without any appreciable difference in its action, and that it may be penetrated by a needle or knife, with the production of a temporary irregularity of its action; that penetrating wounds produced during systole bleed more than those produced during diastole, and that wounds of the ventricles produced during systole are larger than those produced during diastole; that oblique wounds bleed less than perpendicular ones; that wounds of the right veutricle are more dangerous than those of the left, because the wall of the right ventricle is thinner, and also because the blood in the right chamber coagulates more slowly; that wounds of the heart heal well, and that the cicatrix is usually complete in about 14 days; that interrupted sutures are better than continuous ones; that superficial sutures are less likely to tear than deep ones; and that sutures should be inserted aud tied during diastole, because of the danger of their tearing if tied during systole. The conclusions from Sherman's paper also quoted, but there are several points mentioned in the paper which should have been brought out on account of their practical value. Coutrary to Elsberg, Sherman does not find it necessary to suture during diastole. The section on surgical shock is to be commeuded, although we miss references to the more recent researches of Crile upon this question.

Chapters III and IV give, merely, an account of cardiac malformations and displacements with considerable literature bearing upon the subjects. To what extent these conditions are ameuable to surgical treatment, the author does not state. However, the 50 pages given to this matter are certainly out of all proportion to its importance in a work of this kind. The following chapter deals chiefly with the historical side of gunshot, lacerated and incised wounds; and the succeeding one consists of a citation of reported cases of cardioclasia. Theoretically, the subject no doubt belongs in a book of this character; and the author in giving it has, probably, an eye to the possibilities of the remote future. Chapter VII considers cardiorrhaphy, cardiotomy, and heart sutures. Notwithstanding that this should be the most important section in the book, it is dismissed in 28 pages, while almost one-half of this amount of space is given to cardiac malformations aud displacements. Surely this is not logical perspective. Moreover, the symptomotology is so briefly discussed that it seems almost puerile. The surgical treatment of heart wounds is disposed of in about one page. This is unfortunate, especially when we recall the methodical and detailed manner in which Terrier and Reymond have handled it. The description of the management of cardiac wounds is so unsatisfactory that we refer those interested iu the matter to the monograph of the last-named writers. Although justified by Rehn, we are glad to see that Dr. Ricketts condemns probing. With reference to drainage, he advises closing the wound. A close study of the cases with drainage, however, certainly does not justify any such conclusion. And Stewart, in his recent article (Trans. College of Physicians and Surgeons, Phil., 1904), says the question is still sub-judice. Common sense, on the other hand, will show the absurdity of closing a wound which is known to be very probably infected, and likely to suppurate.

Evidently from the title of Chapter VIII, cardiac aneurysms are regarded as indications for operative interference. This strikes us as somewhat sanguine in the present development of cardiac surgery. Foreign Bodies, Cardialiths, Calcification and Abscess are considered in the succeeding four chapters. There is nothing very remarkable here. Other chapters follow upon syphilis, benign and malignant tumors. These and those upon the infectious processes, such as anthrax, tuberculosis, gas-bacillus and typhoid infections of the heart, are so remarkable that we refrain from making any further comment. Just what surgical procedures the author would adopt in such emergencies, we do not even guess. It has, however, been suggested to us that in gas-bacillus infections, one might avail himself of the results of studies by

Senn, who showed that it was possible to remove air from the chambers of the heart by means of an aspirating needle without fatal results. The concluding chapter consists of the recital of various experiments upon dogs, in some of which incisions were made into the pericardium and sewed, while in others they were left open. In others incisions were made into the heart muscle and were sutured, and in still others portions of the coronary arteries were ligated. Sometimes the dogs died, occasionally they recovered. The chief criticism on these experiments is that they were not controlled; therefore, as contributions to the science of heart surgery, they have little significance.

That part of the book devoted to the surgery of the lung is open to the same general criticism as that upon the heart. This is the best we can say for it.

Throughout the volume will be found many wonderful illustrations which tax to the utmost the ingenuity and imagination of the reader. Plates XV, XVII, XVIII, XIX, XXIII, are very much in point. We are also pleased to know that plate XXIII represents an "Epithelial Carcinoma."

Taken all in all, this is the most disappointing work of its class that has ever fallen under the reviewer's notice. As a demonstration of the possibilities of padding, it is highly successful; but as a systematic, logical and scientific presentation of the present status of the surgery of the heart and lungs, it is a monstrous failure. A. J. L.

Operative Surgery. By Joseph D. Bryant, M. D. Fourth revised edition, printed from new plates. Two volumes, 8 vo., 1527 pages, 1793 illustrations. D. Appleton & Co., New York and London, 1905. Sold by subscription. Price, cloth, $10.00.

In these two volumes, gracefully dedicated by the author to his pupils during the past 25 years, the practical general surgeon stands out clearly. This fact is strikingly apparent in the first paragraphs relating to the taking of histories and to anesthesia. While the form of the original edition has been retained, commendable revision has been made, and a great number of very recent contributions to surgery have been added. The chapter on ligation of arteries is tersely written, and beautifully illustrated in colors. Plastic surgery is accorded many pages, and a long list of practical illustrations. The chapter on operations of the neck deserves particular commendation, especially for the profuse description of goitre operations. The consideration of abdominal surgery, covering 1169 pages, contains much of practical interest to the general practitioner, although in many instances the additions seem to have been made by neophytes in clinical work as well as in foreign bibliography. For instance, in abdominal operations it is stated that, "the absence of organism in the field of operation, as determined at the time by the microscope, should be regarded as contra-indicating drainage." Much space is devoted to suture of the common duct after choledochotomy, for stones, a procedure which is seldom employed by up-to-date surgeons. The descriptions and illustrations of Senn's bone-plates, Halsted's hammer, Murphy's oblong anastomotic button and Doyen's resection-choledocorraphy, are perhaps apropos in a museum, but certainly seem misplaced in a modern text-book. The brilliant Mayo brothers will read with surprise the numerous operations described under their names, and to which they have never, for very pertinent reasons, made any claim. The use of the elastic ligature in gastric and intestinal anastomoses is well illustrated and warmly recommended. The surgery of the ureter is dealt with in much detail. The chapter on hernia offers much interest. Decapsulation of the kidney is dismissed with ten lines. Breast operations receive considerable attention from the author. Professor Halsted will view with dismay the chart of instruments required for excision of the breast, showing only 3 hemostats. Fowler is rightly given credit for decortication of the lung, while Ricketts, on the contrary, is erroneously mentioned as having added to the knowledge of heart surgery. An excellent description is given of Proust's perineal prostatectomy, after which Young's and all other anatomic methods have been modeled. Chismore's contributions to litholapaxy are highly praised. In conclusion, the reviewer considers Bryant's operative surgery a useful addition to any practitioner's library. Both printing and binding are more commendable than the publisher's predatory use of foreign plates without knowledge of their origin. D. T.

Drink Restriction (Thirst Cure) Particularly in Obesity.

The sixth of the series of monographs on Diseases of Metabolism and Nutrition by von Noorden has appeared from the press of E. B. Treat & Co., under the title of "Drink Restriction (Thirst Cure) Particularly in Obesity." The work is interspersed with observations by the translator Dr. Boardman Reed, and is worthy of careful perusal by every physician, as the translator aptly says in his preface "especially in this country, where hot-water drinking and colon douching have been carried to an irrational, ridiculous and often very harmful excess by the advice of certain irregular practitioners and cranks." The fallacy of Oertel's and Schweninger's theories has been here most lucidly set forth, by the report of the author's experimental investigations on the effect of thirsting upon the metabolism of human subjects, which experiments would seem to show that a reduction in the intake of fluids has no direct effect on the combustion of adipose tissue, the loss in weight seen during thirst cures being due to the loss of water from the tissues, and the effect of the restriction of liquids upon the appetite. The effect of restriction of liquids upon the heart in obese subjects, is discussed, and such restriction urged as a means of overcoming somewhat the danger of overtaxation of that organ, a danger which is ever present in the obese. The last section is devoted to a consideration of the restriction of liquids in chlorosis, in hepatic cirrhosis, and in hemorrhages. A number of tables illustrative of the author's physiological experiments are appended. The press work is good, and the monograph is decidedly entertaining and instructive. G. H. E.

The receipt of the following reprints is acknowledged:

By Frank C. Todd, Extirpation of the Lachrymal Sac After Injection of Paraffin; An Exact and Secure Tucking Operation for Advancing an Ocular Muscle; by Wm. S. Bainbridge, A Case of Extensive Carcinoma of the Tongue and Neck, Presenting Points of Special Interest; Two Cases Presented to the Clinical Society of the New York Post Graduate; by T. A. Woodruff, Use of Diaphoretic Agents in Ophthalmic Therapeutics; by W. J. Morton, Memoranda Relating to the Discovery of Surgical Anesthesia and Dr. William T. G. Morton's Relation to This Event; by Joseph D. Craig, A Consideration of Some Tendencies in Modern Medical Education; by John W. Trask, The Dangers of Unrestricted Traveling of Consumptives; by Frank Paschal, Presidential Address, State Medical Association of Texas; by W. S. Franklin, Congenital Bony Atresia of the Posterior Nares, Operation, Partial Result.

International Clinics. Volume 1, 15th series, 1905. Philadelphia: J. B. Lippincott Company.

The present series of these interesting volumes begins with one that is quite up to the past standard. There are 3 articles on Treatment; 5 on Medicine, of which number 3 deal with the heart; 5 on surgery; 3 on neurology; 1 on obstetrics, and something over 100 pages of a general resumé of the progress of medicine during the year 1904. One of the best essays in the volume, and one that will be of considerable interest, no doubt, is that of Archibald Young, on "Skin Grafting in the Late Treatment of Severe Burns Involving Extensive Areas of Skin." It is well illustrated.

A Zoological Investigation Into the Causes, Transmission, and Source of Rocky Mountain "Spotted Fever." By Ch. Wardell Stiles. Hyg. Lab. Bulletin No. 20, U. S. P. H. and M. H. Service.

This bulletin presents a study of the whole subject of "spotted fever," with an excellent and most carefully prepared resumé of all the literature bearing upon it. After most thorough and painstaking investigations, the etiology of this peculiar disease seems to remain as much in doubt as ever, and the previously advanced hypotheses must, apparently, be abandoned.

Debierre-Malformations of the Genital Organs of Woman. Translated by J. Henry C. Simes. Published by P. Blakiston's Son & Company, Philadelphia.

This work contains a brief resumé of the anatomy, embryology and malformations of the female genitalia. To anyone who desires this material in compact shape the volume is commended. There is nothing new in the book; nor does the contained subject-matter receive any better treatment than is accorded to it in any good gynecologic text-book.

American Alkalometry. Vol. IV. Chicago: The Clinic Publishing Company.

This volume, mainly composed of various articles which have appeared in the *Alkaloidal Clinic* during the years 1902 and 1903, is devoted to an advocacy of the use of alkaloids in the treatment of disease. The arrangement of the material is alphabetical, which greatly facilitates reference.

Diseases of Metabolism and Nutrition. By Dr. Carl von Noorden. Translated by Boardman Reed. New York: E. B. Treat & Co., 1904. Part 3, **Colitis**; price, 50 cents. Part 4, **Acid Autointoxications**; price, 50 cents. Part 5, **The Effects of Saline Waters on Metabolism**; price, 75 cents.

Report of Working Party No. 2, Yellow Fever Institute. Experimental Studies in Yellow Fever and Malaria at Vera Cruz, Mexico. By M. J. Rosenau, H. B. Parker, Edward Francis and George E. Beyer, U. S. P. H. and M. H. Service, May, 1904

Tumors of the Cerebellum. By Drs. Charles K. Mills, Charles H. Frazier, G. E. De Schweinitz, T. H. Weisenburg and Edward Lodholz. Reprinted from the *New York Medical Journal*. New York: The A. R. Elliott Publishing Co., 1905.

The Action of Pilocarpin and Atropin on the Flow of Urine. By John Bruce MacCullum. Publication of the University of California, Department of Physiology. Berkeley: The University Press.

The Immunity Unit for the Standardization of Diphtheria Antitoxin. By M. J. Rosenau. Bulletin 21, Hygienic Laboratory, U. S. P. H. and M. H. Service.

On the Diuretic Action of Certain Hemolytics and the Action of Calcium in Suppressing Hemoglobinuria. By John Bruce MacCullum.

Report of the Tuberculosis Commission of the State of Vermont to the General Assembly, 1904.

Ohio Hospital for Epileptics. Fourteenth Annual Report, for the year 1904.

Manhattan Eye, Ear and Throat Hospital Reports. No. VI, March, 1905.

On an Improved Method of Artificial Parthenogenesis. By Jacques Loeb.

Transactions of the Vermont State Medical Society, 1904.

Resignation of Dr. Wilbur.

The President, Dr. R. F. Rooney, announces that he has received and accepted the resignation of Dr. Roy Lyman Wilbur, Stanford University, as alternate medical examiner, and he has appointed Dr. Clark J. Burnham, San Francisco, to fill the vacancy caused by this resignation.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Alden, Bertram F., from 751 Sutter st., to 713 Spreckels Annex, San Francisco.

Baumgarten, William, from St. Joseph's Hospital to 3694 20th st., San Francisco; hrs. 2-4 and 7-8 P. M. **Beadles, E. St. C.,** from Sefton Blk., San Diego, to 1420 Le Roy ave., Berkeley. **Berndt, Richard M. H.,** from 759 Folsom st. to Auzerais Bldg., 21 Powell st., San Francisco; hrs. 1-3 and 7-8 P. M. Bine, René, from add. unk. to 731 Sutter st., San Francisco.

Compton, A. J., from 402 15th st., Sacramento, to Paradise, Butte Co. **Cook, E. J.,** from 315 W. 6th st. to Hellman Bldg., Los Angeles.

Davy, R. B., from 369 Sutter st., San Francisco, to Downieville, Sierra Co. De Marville, Henri B., from 533 Sutter st. to 643 Sutter st., San Francisco; hrs. 1-3 P. M. **Dilworth, William D.,** from Ventura Co. to 318 Hellman Bldg., Los Angeles.

Elster, Lester A., from Mendocino State Hospital, Talmage, to 1317 Regent st., Alameda.

Fish, Chas. W., from 2120 S. Main st. to Laughlin Bldg., Los Angeles; hrs. 11-12 A. M. and 2-4 P. M. Flynn, Anna M., from 651 Geary st. to 791 Sutter st., San Francisco; hrs. 1-3 and 7-8 P. M. **Fouch, Albert N.,** from Sutter City, Sutter Co., to 1729 Francisco st., Berkeley, Alameda Co. Frink, Geo. K., from 289 Post st. to Union Trust Bldg., San Francisco.

Goodale, S. W., from 803 Bryant st. to 987 Harrison st., San Francisco; hrs. 2-4 and 7-8 P. M. **Graves, J. H.,** from 1003 Valencia st. to 987 Valencia st., San Francisco.

Hardin, A. E., from Pacific Grove to James Flood Bldg., San Francisco. **Harry, Chas. R.,** from 314 E. Main st. to Alliance Bldg., Stockton; hrs. 1:30 to 4:30 P. M. **Harrison, Emily G.,** from 705 Sutter st. to 636 Clement st., San Francisco; hrs. 1:30-3:30 P. M. Hector, Robert, from add. unk. to St. Joseph's Hospital, San Francisco. **Henderson, Jas. J.,** from 813 Sutter st. to Dana Bldg., San Francisco. **Henslee, William,** from Burke, Sonoma Co., to 1095 Market st., San Francisco. **Herrington, Howard,** from 916 Market st. to 261 Grant st., Berkeley. **Hirschfelder, Jas. O.,** from 481 Geary st. to Dana Blg., 218 Stockton st., San Francisco; hrs. 2-5 P. M. Hoag, M. C., from Exeter, Tulare, Co., to Sacramento. **Hopkins, Edward K.,** from 905 Sutter st. to 803 Sutter st., San Francisco; hrs. 1-5 P. M. **Huff, S. G.,** from San Bernardino to Rialto, San Bernardino Co.

Jacobs, Louis C., from add. unk. to 2101 Pacific ave., San Francisco.

Keeney, J. W., from 751 Sutter st. to 218 Stockton st., San Francisco.

Malony, Wm. R., from 452½ S. Broadway to Mason Bldg., Los Angeles; hrs. 10:30 A. M.-12 and 2-5 P. M. Marshall, Benjamin, from 974 Sutter st. to Bohemian Club, San Francisco (retired from active practice). **McLean, Robert A.,** from 2156 Sutter st. to 386 Sutter st., San Francisco; hrs. 9-10 A. M. and 2-4 P. M. Mendel, Louis C., from 2932 Washington st. to 2148 Broderick st., San Francisco. **Morrison, H. K.,** from Bakersfield to New Orleans, La.

Nelson, Arthur Barris, from Grant Bldg. to 603 Montgomery st., San Francisco; hrs. 2-4 P. M.

Olivieri, Leonida, from Independent Bldg. to Hansel Bldg., Stockton; hrs. 10-12 A. M. and 2-5 P. M.

Petch, L. G., from add. unk. to Blue Lake, Humboldt Co. **Powers, Geo. H.,** from 533 Sutter st. to Dana Bldg., 218 Stockton st., San Francisco.

Ragan, P. J., from Pacific Grove, Monterey Co., to Haywards, Alameda Co. **Rethers, Theodore,** from cor. Geary and Stockton sts. to Spring Valley Bldg., San Francisco. Rich, G. D., from 749 Hyde st. to James Flood Bldg., San Francisco; hrs. 10 A. M.-1 P. M. and 2:30-4 P. M. Rodgers, Lee Omar, from 817

Grove st., San Francisco, to 579 University ave., Palo Alto, Santa Clara Co. **Rooney, Henry T.**, from 912 Guerrero st. to 1805 Fillmore st., San Francisco. Rutherford, Walter S., from 408 Locust st., San Francisco, to 1396 Harrison st., Oakland; hrs. 1-3 P. M.

Sanborn, Blanche L., from 1786 Sutter st. to 1860 Buchanan st., San Francisco. **Serviss, Thomas W.**, from 522 Sutter st. to James Flood Bldg., San Francisco; hrs. 11 A. M. to 5 P. M. and 7-8 P. M. Siebe, Elizabeth B., from add. unk. to 643 Sutter st., San Francisco; hrs. 2-4 P. M. **Smith, Reginald K.**, from 2600 Jackson st. to 391 Sutter st., San Francisco; hrs. 3-5 P. M. **Snedigar, W. S.**, from Wallace Bldg. to 521 Center st., Stockton. **Sprague, Wm. P.**, from 801 O'Farrell st. to McCloud Bldg., 406 Sutter st., San Francisco.

Tillman, Frank J., from 713 Market st. to 1281 Market st., San Francisco; hrs. 3-5 and 7-8 P. M. Tillman, Tilton E., from 1915 Larkin st. to 1281 Market st., San Francisco. **Titchworth, James C.**, from 2924 Bush st. to 2980 Bush st., San Francisco; hrs. 2-4 and 7-8 P. M.

Waldeyer, Wilhelm, from add. unk. to City and County Hospital, San Francisco. Webster, Hannah E., from add. unk. to 1120 Valencia st., San Francisco. Weschcke, Emil, from 1120 Harrison st., San Francisco, to Oakland, Alameda Co.; hrs. 2-4 and 7-8 P. M. **Williams, Annie W.**, from Hollister, San Benito Co., to Haywards, Alameda Co.

New Names.

Davis, Grace Van, 1329½ Clay st., San Francisco. Med. Dept. Univ. of Oregon, '00 (C.) '00.

Huffman, J. E. (H.), 643 Sutter st., San Francisco. Hrs. 1-3 and 6:30-7:30 P. M. Dunham Med. Coll. and Hosp., Chicago, Ill., '97 (C.) '97.

Underwood, M. F., Ferndale, Humboldt Co. Hering Med. Coll., Chicago, Ill., '95 (C.) '95.

New Members.

Alameda County—**Riggin, L. L.**, and **Wood, E. G.**
Mendocino County—**Beckman, O. H.**
Riverside County—**Robertson, H. M.**
San Francisco County—**Jacobs, Louis Clive.**

Deaths.

Bush, Chas. W., Los Angeles.
Hiller, D. A., San Francisco.
Hockett, L., Whittier.
Knight, Benjamin, Santa Cruz.
McTaggart, M., Grass Valley.
Pendery, Benj. F., Sacramento.
Shearer, M. M., Santa Rosa.
Westlake, H. W., Los Angeles.

Pharmaceutical Congress.

The Lewis and Clark Pharmaceutical Congress will meet at Portland, July 11th-14th. A program of over fifty papers by the ablest writers on pharmaceutical topics is offered. The sessions will be so arranged as not to interfere with the session of the section on pharmacology and materia medica of the A. M. A. The papers to be presented are divided into two main groups, one group treating pharmaceutical topics historically, the other group devoted primarily to pharmacy on the Pacific Coast. Efforts will also be made to organize the pharmacists west of the Rocky Mountains. A complete program and other announcements pertaining to the Pharmaceutical Congress will be found in the June number of the *San Francisco and Pacific Druggist*.

Heavy Sentence for Illegal Practitioner.

The record for heavy sentencing of an illegal practitioner is held by a justice court in Long Beach, Los Angeles County. One "Prof." Norfleet, an itinerant faker who did considerable injury to several of his too confiding "patients" was arrested, tried by a jury, convicted and sentenced to pay a fine of $250.00 and spend 100 days in the county jail. Los Angeles seems to have taken to heart the aspersion cast upon her some months ago, to the effect that that beautiful city was the "Mecca of the quack."

Sweeping the Sick-Room

While lecturing recently, a Chicago physician—and member of the School Board—declared the prevailing method of dry sweeping a prolific source of disease, due to the spreading of germ-laden dust. Dust, dirt and germs are best removed from floors by first sweeping with a cloth-covered broom, moistened with water containing just a little Platt's Chlorides.

Platt's Chlorides,

The Odorless Disinfectant

A colorless liquid, sold in quart bottles only. Manufactured by Henry B. Platt, N. Y.

FORMULA—A combination of the saturated solutions of Chloride Salts, proportioned as follows: Zn 40 per cent., Pb 20 per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent., K 5 per cent.

California State Journal of Medicine.

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PHILIP MILLS JONES, M. D., Secretary and Editor

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. III AUGUST, 1905. No. 8

EDITORIAL NOTES.

THE SURGICAL ASSOCIATION.

In July, the American Surgical Association met in San Francisco and, considering the distance which most of the members had to travel, the attendance was excellent. In another portion of the JOURNAL will be found an abstract report of the sessions. One feature of the papers presented is to be highly commended for the consideration of our own members who may wish to present subjects, a complete treatment of which would be necessarily long. We refer to the careful preparation of a full abstract or digest of the paper, this abstract to be read at the time of the meeting and the paper in full reserved for future publication. The usual time allotted to each author is 15 minutes, and this is certainly sufficient; if the whole paper cannot be read within that time, then the author should write a digest, giving the meat of his argument, which may be read at the meeting. No matter how interesting the subject may be, the time limit should be enforced.

THE A. M. A. MEETING.

It will be impossible to give anything like a report of the Portland meeting of the American Medical Association in our JOURNAL, but some of the more important points may be briefly touched upon, leaving further details for future issues. The registration was very good; quite as large as could have been expected, reaching something over 1,700. The Oregon physicians had done their very best to make the meeting a successful one, and their best was very good. In the matter of entertainments provided, no words but those of praise can be spoken. To invite the whole Association to a trip up the Columbia river, was no small undertaking, and its successful carrying out reflects great credit upon those who had the matter in charge. The section programs, while possibly not as lengthy as at some previous meetings, were very good indeed. Dr. Herbert C. Moffitt, of San Francisco, was elected Chairman of the section on Medicine.

NEW OFFICERS OF THE A. M. A.

At the next meeting of the Association, which is to be held in Boston, Dr. Wm. Mayo, of Rochester, Minn., will be installed as President. The Vice-Presidents elected are, respectively, Drs. Walter Wyman, Kenneth A. J. Mackenzie, Eugene Talbot and Edward S. Martin. Dr. George H. Simmons was re-elected Secretary and Dr. Frank Billings Treasurer. The retiring Trustees, Drs. E. E. Montgomery, H. A. L. Johnson and A. L. Wright, were elected to succeed themselves. The Oration on Medicine will be delivered by Dr. F. B. Shattuck, on Surgery by Dr. Joseph D. Bryant, and on State Medicine by Dr. Wm. H. Sanders. Almost without exception, the elections were unanimous, and not for many years have the officers of the Association been chosen with such absolute unanimity and good feeling. If one should try to express the general tone of the House of Delegates throughout the session in one word, probably "harmony" would express it better than any other.

NO STRUM QUESTION.

The nostrum evil and the advertising of nostrums in the *Journal A. M. A.* received considerable attention not only by the House of Delegates but also in the section on Medicine. The first gun was fired on the afternoon of Monday, when the Missouri delegation presented resolutions from their state Association calling for betterment in the *Journal's* advertising pages. This was followed by a resolution introduced by Dr. Jones, of California, to the effect that the Trustees be instructed to abide by the rule which they announced in 1895 and in 1900, requiring formulæ with all advertisements of remedial mixtures. On Tuesday, Dr. Frank Billings read a very valuable paper before the section on Medicine, on the subject of nostrums, and in the discussion which followed, and which is reported to have been very free and frank, much credit was given to your Society and to your JOURNAL for the energetic campaign waged during the past year or more. The section then prepared and adopted resolutions similar to those referred to, and at the afternoon session of the House of Delegates they were presented by the delegate from the section. All these resolutions, together with the recommendation in the President's address, were referred to a special committee of which Dr. Frank Billings was chairman. One of your delegates, Dr. Jones, was requested to attend the meeting of this reference committee,

and was subsequently appointed a member of it, in the absence of one of the regularly appointed members. This committee made a unanimous report to the House of Delegates and the House unanimously adopted the report, which will be printed in full in a subsequent issue. We have every assurance that the Trustees intend to abide by the unanimous desire of the House of Delegates, and that all advertisements of an objectionable nature will be dropped as the contracts expire. Every member of the Association and every self-respecting physician in the United States is to be congratulated upon this action and what it promises.

HOPE FOR THE FUTURE.

The special reference committee, Dr. Billings chairman, also recommended that the work of the Council on Pharmacy and Chemistry be indorsed, and that the Trustees be instructed to provide for its permanent organization. This will, eventually, provide information that will be of the very greatest value in dividing the decent proprietary preparations from the nostrums, and in determining the reputable manufacturers from those who are not so. A resolution was introduced and unanimously passed calling upon the journals of the various state medical associations or societies to co-operate with and support the Council in its work, and it is hoped that they will work in harmony with the *Association Journal* in the dissemination of useful and valuable information on the subject. Thus it appears that there is much reason to hope for a decided improvement in the future. The Trustees will be responsible for the hall of exhibits and for the general arrangements for the annual meetings; the Council on Pharmacy and Chemistry will be continued and, in all probability its work will be broadened; the exhibits and the advertising pages of the *Association Journal* will be, presumably, more or less under the supervision of the Council; there is a strong probability that the various state journals will clean up their advertising pages and conform to the standards of the Council. Of course, to do all these things will take time. We must expect plenty of abuse from the nostrum men and such journals as cater to that nasty traffic; but insults from these gentry who deal in human lives and fatten on the ill-gotten wealth derived from exploiting and swindling the medical profession and the sick in their care, we should regard as compliments. The harder they are hit by this simple honesty, the more noise will they make and the more easily shall we be able to pick out the dishonest and the utterly depraved. The Association is big and is growing rapidly; it has undertaken to do a work that will mean incalculable good not alone for the medical profession in this country, but for every patient of every member of that profession. Let us, then, do all that we can to help and to aid the Association, and let us look forward confidently to a better and a brighter future.

HALL OF EXHIBITS.

Many of the objectionable so-called "remedies" which have disgraced the hall of exhibits in previous years, were conspicuous by their absence, though there was quite a sprinkling of objectionable things present. We may look forward to still further improvement in this direction, for the whole responsibility is now placed in the hands of the Trustees. An amendment was introduced requiring the Trustees to provide for the necessary meeting places for sections, delegates, etc., and to pay the expenses of the annual meetings, leaving the exhibit question to their discretion but attaching to them the responsibility for the result. This is most decidedly as it should be. For the Association to ask or expect the local physicians of the community with which it happens to meet to liquidate its own expenses, is, to say the least, decidedly undignified. Complaint has been made from time to time for several years, yet nothing has been done, and indeed it has been claimed that the Trustees could do nothing as the by-laws required the local men to make such provisions. The Constitution as it stands (Article 11) says: "Funds may be appropriated by the Board of Trustees to defray the necessary expenses of the Association," and this, apparently, gives full authority. But as the question had been disputed it was thought best to specifically require such action. When the hall of exhibits is in charge of a local committee of arrangements, the responsibility cannot be placed to any advantage; now that it is in charge of the Trustees, we know where to place the blame or give the credit. If the hall of exhibits of the future shall deserve, as it has earned in the past, the designation of the "ten-cent side show of the A. M. A.," we may ask the Trustees for an explanation. All indications, however, point to a thorough cleansing of this particular stable.

THE A. M. A. DIRECTORY.

The publication of a directory of all licensed physicians in the United States has been contemplated by the Trustees for some time, and in their report at the Portland meeting they recommended the authorization of this work by the House of Delegates and the purchase of the Standard Directory as a valuable aid in the work. The final adoption of this recommendation elicited considerable discussion and there seemed to remain a certain amount of misunderstanding in the minds of some of the delegates. Dr. McCormack, the organizer of the Association, would not consent to continue his work unless all question of dissention or difference of opinion was settled. In order to bring the matter before a full session of the House of Delegates,

Dr. Jones, of California, moved to suspend the by-laws at the afternoon session on Thursday, immediately preceding the election of officers, for the purpose of introducing a resolution. The motion to suspend the by-laws was carried unanimously and Dr. Jones introduced a resolution requesting Dr. McCormack to continue his work of organization. In speaking on the resolution, Dr. McCormack called attention to the reported lack of unanimity of feeling among the delegates, and said that his work could not be well done unless every state represented in the House of Delegates was in full understanding and accord with the movement and with the Association. A vote being then taken on the resolution, it was unanimously passed, the best of feeling prevailing and the entire matter being quite fully understood.

THE NEW U. S. PHARMACOPEIA.

We are advised that the new United States Pharmacopeia will be issued from the press on September 1st, and a full review of this new edition will be published in the JOURNAL at some future date. At the present time we wish to call the attention of our members to some very important changes that will go into effect on the 1st of September. The strength of tincture of aconite has been reduced from 35% to 10%, and the strength of tincture of veratrum has been reduced from 40% to 10%. The strength of tincture of strophanthus has been increased from 5% to 10%. These changes have been made in order to bring these potent drugs to the international standards; they will be legally in force and effect on September 1, 1905, and all physicians should remember that fact in prescribing after that date. While we have not space at the present time to dwell at length upon the pharmacopeia, we cannot refrain from emphasizing the fact that it has been greatly neglected by the vast majority of physicians, much to their own injury and to the enriching of the nostrum manufacturers.

IMPORTANCE OF ACCURACY.

Last month the JOURNAL quoted a paragraph from the *St. Louis Medical Review* referring to a garbled account of the Tortorici murder case and commented thereon in humorous vein. Our excessively dignified contemporary of St. Louis did not appreciate the humorous side, seems hurt at the "sarcasm" and in turn refers to our now celebrated difference of opinion with the *New York Medical Journal*, and the equally celebrated "retraction," widely advertised throughout the country. But our medical brother of St. Louis did not read the "retraction" in quite the proper way; what we said was: "We do not *know* that the editorial pages of the *New York Medical Journal* have been bartered for coin." But we *do* know that at least one physician in California has upon two occasions canceled his subscription to that journal for the reason that its columns contained articles of a rather too strong commerical flavor.

UNDESIRABLE SYMPATHY.

Since the days of great prosperity in Rome, and doubtless from a time long prior to that golden epoch, the harlot seems to have joyed in flaunting herself before her less communistic sisters and, in seasons, to have gloried in her own shame. Equally has she patronized her less showily decked and less brazen compatriots and extended a certain friendly sympathy alike to the rake and to the "poor but honest"; to the rake, this seeming sympathy may, perchance, be acceptable.

Some little time ago the *New York Medical Journal*, through its owner and publisher, inadvertently announced to the medical world of this country its separation and complete divorce from those standards of ethics which have seemed good to honest and upright physicians and its allegiance to the elements which make for the very worst influences in medicine—the nostrum and the nostrum maker. The publisher of the *New York Medical Journal* opposed and abused the American Medical Association for the reason that the Association had organized a Council on Pharmacy and Chemistry composed of eminent gentlemen, which Council should calmly consider all remedies submitted to it and do but one simple thing—ascertain whether they were honest preparations honestly placed before medical men, or whether they were secret remedies—nostrums—dishonest preparations, harmful alike to the confiding physician who might use them and to the unfortunate patient who might have to consume them. One can hardly imagine a physician so densely ignorant or so absolutely lost to all self-respect and esteem as not to welcome the formation of a Council having such helpful and such philanthropic purposes in view. The owner and publisher of the *New York Medical Journal* has gone on record as opposing this Council and being favorably disposed to the nostrum manufacturers. He claims that there are 20,000 physicians in this country who help to support his journal by subscribing to it, and apparently flaunts in the face of each one of these presumably self-respecting physicians his absolute disregard for any consideration other than dollars and cents. Indeed, in March the publisher of the *New York Medical Journal* wrote to a number of "manufacturers" suggesting that they furnish their opinions upon the right of nostrum makers to foist their nostrums upon the medical profession, for publication in his journal. Would not this have been truly delectible pabulum on which to feed the 20,000 presumably honest physicians who contribute to the support of the *New York Medical Journal* and its publisher?

Quite recently this same journal has, we understand, sent a circular to most if not all physicians in the country, in which a certain patronizing esteem or sympathetic regard for the Medical Society of the State of California is expressed. We are almost helpless to resent such an insult and can only protest that as humble "toilers in the vineyard" with nothing but the virtue of simple honesty of purpose and endeavor to support us in the consciousness of striving for the right, we cannot, as we otherwise might, appreciate the patronizingly sympathetic expression of friendship on the part of the nostrum's advocate—the publisher of the *New York Medical Journal*.

The American Surgical Association.

[A Critical Review Written for the JOURNAL.]

The meeting of the American Surgical Association in San Francisco was an event of more than ordinary interest to the medical profession of this state. This Association was founded in 1881 by the elder Gross and has an active membership limited to 125, composed of a goodly majority of the most distinguished surgeons of this country. There is also a limited number of honorary members chosen from the European surgeons of world-wide fame. Of this group of men there were nearly 30 who gathered in San Francisco for this meeting. The scientific discussions were open to the profession and were attended by many from different parts of the state. While the acoustic properties of the hall in which the meetings were held were not the best, the great majority of the speakers could be heard.

The address of the President, Dr. George Ben Johnston of Richmond, Va., was an interesting account of the life of Mettauer of Virginia, whose work as a surgeon in the early part of the 19th century was of much importance. Dr. Johnston is a typical Southern gentleman and presided with much grace and dignity.

The symposium on the surgery of lesions of the spinal cord was not of very general interest, as but few have had the opportunity to do this special work, but the papers were of much value. Particularly of moment was the report of Dr. J. Collins Warren of Boston, of three cases of laminectomy for neoplasms of the cord with good results. Dr. Warren is a finished speaker and his wide experience entitles him to take an authoritative position on many matters of surgery.

None of the papers read commanded more attention than did that of Dr. Wm. J. Mayo of Rochester, Minn., entitled "A Comparison of Methods of Performing Gastro-enterostomy." The work of the two Mayo brothers has been of such a high character that they have rapidly acquired international reputations and consequently all the visitors were eager to hear one of them. Dr. Wm. Mayo is a clean-cut talker, of good presence, and carries conviction with every word. Dr. Manrice H. Richardson of Boston was one of the shining lights, as he is in any gathering, and his history of an unusual case of intussusception gave but an inkling of his charming class-room manner which has inspired so many students.

To mention the name of Dr. Chas. A. Powers of Denver is to bring to the minds of those who are acquainted with him his exceedingly pleasant personality. His papers are always of interest and evidence painstaking work of the highest character. The presence of Drs. Robert T. Weir of New York and A. J. Ochsner of Chicago added much to the interest of the occasion. The former is a fluent speaker and though somewhat advanced in years is still young in mind. Dr. Ochsner is a vigorous though not very fluent talker and his paper on constriction of the duodenum opened up many new points for discussion. He has the ability to summarize well, both personal experiences and knowledge gained from the literature.

One of the best papers of the session was read by Dr. Roswell Park of Buffalo. It was a masterly exposition of the status lymphaticus and was delivered in his easy, forceful manner.

California was represented by Drs. Thomas W. Huntington and Emmet Rixford, who both presented papers. The state was further honored by the election to membership of Dr. Harry M. Sherman of San Francisco, who well merits this added dignity.

Nearly all the papers were well discussed and about the only criticism which might be made was that they were too long to be read in the allotted time of fifteen minutes, and, with but a couple of exceptions, the authors had not prepared abstracts. As a consequence the first parts of the papers were read in full while the latter parts were hurriedly abstracted or portions entirely omitted.

That the influence of this meeting on the surgeons of this community, especially the younger ones, was markedly for good, seems to be beyond question, and we trust that other such scientific bodies will favor us with their presence.

AMERICAN SURGICAL ASSOCIATION MEETING.

The sessions of the Association held in San Francisco, July 5, 6, 7, were well attended, considering the distance which most of the members had to travel, and were both valuable and instructive. Quite a number of California surgeons took advantage of the general invitation to attend the scientific sessions. Where all of the material presented is so good, it is somewhat difficult to select certain papers of particular interest or value, but the contributions of Roswell Park, Wm. Mayo and Thos. W. Huntington seemed to the careful observer to demand considerably more than passing interest. The relation of the physiological and pathological secretions of certain of the ductless glands to general surgery, so exceedingly well recounted by Park, and again accentuated by Huntington, indicate a direction which the surgical study of the future must take.

The following report of the meeting will doubtless seem somewhat fragmentary, but it must be remembered that in most cases the authors read abstracts of their papers and that nothing short of a verbatim report would be much more satisfactory.

Wednesday Morning Session.

The meeting was called to order by the Vice-president, Emmet Rixford, who introduced the President, George Benjamin Johnston, of Richmond, who read the annual presidential address. His essay dealt with the history of surgery in this country and was not only very carefully and interestingly prepared, but was also well delivered. It was mainly devoted to a sketch of the life of Mettauer. In 1840 he reported the first operation, which was performed in 1838, for the cure of vesico-vaginal fistula. Special instruments had been made by him, and lead wire was used for suture material. After citing numerous instances of marked advances, the paper was closed. Dr. Johnston took the chair and "End Results in Surgery of the Kidney" was read by A. Vander Veer, Albany, N. Y. He reported some very interesting cases including 24 nephrotomies, 9 nephrotomies followed by nephrectomies, 8 malignant growths, 2 decapsulations for nephritis, 6 of renal colic, apparently with stone, but stone found in one only, and 6 traumatisms. Operative procedures upon the kidney in the main promise well. In discussion Dr. Mayo asked if nephrotomy in tuberculosis has been followed by good

result. Had noted 36 cases and thought that in the majority of cases, the disease is one-sided in early stages. That it was bad to remove only a part of the ureter; it should be removed down to the bladder or not at all; in the latter case, 15 minims pure carbolic acid should be injected, and one would not have to subsequently remove the ureter. McLaren, of St. Paul, spoke of the case of removing the kidney after resection of twelfth rib. Can plug opening into pleura. Vander Veer, in closing, said he had only one death following removal of one tubercular kidney. Thought the removal of the ureter, or direct application of carbolic acid, absolutely essential. Present practice is to remove the ureter.

"Excision of Portions of the Chest Wall for Malignant Tumors," by Emmet Rixford, of San Francisco, was the next paper read, and in it the author recommended this procedure in order to limit recurrence. Reported 5 cases and noted that no serious results followed the pneumothorax. No special appliances or apparatus required. A wet towel, folded and placed over the opening as it was made, closed the opening quite well and greatly aided respiration. In discussion, N. B. Carson, of St. Louis, reported an interesting case of the same sort, but followed by recurrence; a second, the patient was operated on two years ago, three or four ribs and most of sternum removed; patient now well and no recurrence. Roswell Park, of Buffalo, referred to the cabinet revised for this operation, but was not convinced of the necessity of this in opening one side of the chest, and complimented the author highly. F. W. Parham, of New Orleans, referred to a very difficult operation in which a large area of the chest wall was removed, the lung drawn down and stitched to the diaphragm; the patient now alive, 42 months after operation. Dr. Rixford closed the discussion and referred to Dr. Parham's work.

"Nonparasitic Cysts of the Spleen," by Charles Powers, of Denver, was the next paper. Author referred to scanty bibliography on this subject, and reported collecting histories of 32 cases, with one patient operated upon by himself. The subject was carefully analyzed and the author concluded that possibly 50 or 60 such conditions had been observed.

"The Status Lymphaticus," by Roswell Park, was the next paper read and the close connection between the hypertrophy of the thymus gland and the condition under discussion was clearly pointed out. He also referred to the probable connection between a number of conditions and the ductless glands. The use of epinephrin (adrenalin) hypodermatically, and removal of the thymus, with tracheotomy, were discussed by the author.

"Patent Urachus," by George Tulley Vaughan, of Washington, was the next paper read. Only 52 cases could be found recorded in the literature of the Surgeon General's library.

Thursday Morning Session.

"A Summary of all Cases of Fracture of the Spine (244) which were treated at the Boston City Hospital from 1864 to 1905." This paper, in the absence of the author, Herbert L. Burrell of Boston, was read by the Secretary, Dr. Allen. A synopsis of the cases is given herewith:

FIRST SERIES.

1864-87.

Frequency of Symptoms.
Total cases, 82.

Crepitus,	51 = 62.1%
Deformity,	63 = 76.8%
Unconciousness,	18 = 21.9%
Paralysis, complete,	67 = 81.7%
Paralysis, incomplete,	6 = 7.3%
Paralysis, none,	0
Pain,	71 = 86.5%
Priapism,	18 = 21.9%
Delirium,	12 = 14.6%
Cystitis,	31 = 37.8%
Bed-sores,	21 = 32.9%

Regions.
Total cases, 82.

Cervical,	28 = 34.1%
Deaths,	25 = 89.2%
Recoveries,	3 = 10.8%
Upper dorsal,	12 = 14.6%
Deaths,	8 = 66.6%
Recoveries,	4 = 33.4%
Lower dorsal,	19 = 23.1%
Deaths,	18 = 94.7%
Recoveries,	1 = 5.3%
Lumbar,	23 = 28.0%
Deaths,	13 = 56.5%
Recoveries,	10 = 43.5%

Mortality.
Total cases, 82.

Deaths,	64 = 78%
Recoveries,	18 = 22%

Time.
Total cases, 82.

Total deaths,	64 = 78.0%
Within 5 days,	39 = 60.9%
Within 10 days,	8 = 12.6%
Within 1 month,	7 = 10.9%
After 1 month,	10 = 15.6%

Results.
Total cases, 82.

Total recoveries,	18 = 22%
Useful,	9 = 50%
Useless,	9 = 50%

SECOND SERIES.

1887-1900.

Frequency of Symptoms.
Total cases, 114.

Crepitus,	30 = 26.3%
Deformity,	58 = 50.8%
Unconsciousness,	14 = 12.2%
Paralysis, complete,	93 = 81.5%
Paralysis, partial,	14 = 12.2%
Paralysis, none	7 = 5.1%
Pain,	58 = 50.8%
Priapism,	37 = 32.4% (106 male cases).
Delirium,	29 = 25.4%
Cystitis,	22 = 19.3%
Bed-sores,	23 = 20.1%

Regions.
Total cases, 114.

Cervical,	44 = 38.5%
Deaths,	41 = 93.1%
Recoveries,	3 = 6.9%
Upper dorsal,	24 = 21.0%
Deaths,	22 = 91.6%
Recoveries,	2 = 8.4%
Lower dorsal,	34 = 29.8%
Deaths,	19 = 55.8%
Recoveries,	15 = 44.2%
Lumbar,	12 = 10.5%
Deaths,	7 = 58.3%
Recoveries,	5 = 41.7%

Mortality.
Total cases, 114.

Deaths,	89 = 78%
Recoveries,	25 = 22%

Time.
Total cases, 114.
Total deaths, 89 = 78%
Within 5 days, 67 = 75.2%
Within 10 days, 7 = 7.8%
Within 1 month, 8 = 9.2%
After 1 month, 7 = 7.8%

Results.
Total cases, 114.
Total recoveries, 25 = 22%
Useful, 15 = 60%
Useless, 10 = 40%

THIRD SERIES.

1900-1904.

Frequency of Symptoms.
Total cases, 48.
Crepitus, 12 = 25.0%
Deformity, 37 = 77.0%
Unconsciousness, 9 = 18.7%
Paralysis, complete, 25 = 52.0%
Paralysis, partial, 7 = 14.5%
Paralysis, none, 16 = 33.3%
Pain, 42 = 87.5%
Priapism, 11 = 23.9% (46 male cases)
Delirium, 2 = 4.1%
Cystitis, 13 = 27.0%
Bed-sores, 13 = 27.0%

Regions.
Total cases, 48.
Cervical, 14 = 29.1%
Deaths, 11 = 78.5%
Recoveries, 3 = 21.5%
Upper dorsal, 7 = 14.5%
Deaths, 3 = 42.8%
Recoveries, 4 = 57.2%
Lower dorsal, 22 = 45.8%
Deaths, 4 = 18.1%
Recoveries, 18 = 81.9%
Lumbar, 5 = 10.4%
Deaths, 0
Recoveries, 5 = 100%

Mortality.
Total cases, 48.
Deaths, 18 = 37.5%
Recoveries, 30 = 62.5%

Time.
Total cases, 48.
Total deaths, 18 = 37.5%
Within 5 days, 11 = 61.1%
Within 10 days, 1 = 5.5%
Within 1 month, 3 = 16.7%
After 1 month, 3 = 16.7%

Results.
Total cases, 48.
Total recoveries, 30 = 62.5%
Useful, 23 = 76.6%
Useless, 7 = 33.4%

SUMMARY OF THREE SERIES.

Frequency of Symptoms.
Total cases, 244.
Crepitus, 93 = 37.8%
Deformity, 159 = 68.1%
Unconsciousness, 41 = 17.6%
Paralysis, complete, 185 = 71.7%
Paralysis, partial, 27 = 11.3%
Paralysis, none, 16 = 11.1%
Pain, 171 = 74.8%
Priapism, 66
Delirium, 43 = 14.7%
Cystitis, 66 = 28.0%
Bed-sores, 63 = 26.6%

Regions.
Total cases, 244.
Cervical, 86 = 33.9%
Deaths, 77 = 85.7%
Recoveries, 9 = 14.3%
Upper dorsal, 43 = 16.7%
Deaths, 37 = 76.7%
Recoveries, 10 = 23.3%
Lower dorsal, 75 = 32.9%
Deaths, 41 = 56.1%
Recoveries, 34 = 43.9%
Lumbar, 40 = 16.3%
Deaths, 20 = 50.0%
Recoveries, 20 = 50.0%

Mortality.
Total cases, 244.
Deaths, 171 = 64.5%
Recoveries, 73 = 35.5%

Time.
Total cases, 244.
Total deaths, 171 = 64.5%
Within 5 days, 117 = 65.7%
Within 10 days, 16 = 8.6%
Within 1 month, 18 = 12.1%
After 1 month, 20 = 13.3%

Results.
Total cases, 244.
Total recoveries, 73 = 35.5%
Useful, 47 = 62.2%
Useless, 26 = 37.8%

"A case of Suture of the Spinal Cord Following a Gunshot Injury Involving Complete Severance of the Structure," by George R. Fowler. A man was shot with a 38-calibre revolver bullet between 10th and 11th dorsal spines; paralysis ensued from the mid-abdomen down. Incision was made and laminal of 10th, 11th and 12th dorsal vertebra removed. Cord was found severed and the ends were drawn together and sutured. About two months after operation, slight movements of toes noted; no sensation; no control of sphincters; Bobinski present. Slight improvement in bladder and rectum sensations. In January, 1905, no sensation, except slight in an area on outside of right thigh. General condition about the same; atrophic muscular changes noted. In June, 1905, line of anesthesia extended only up to the pubes.

Various results and reports were summarized, these seeming to agree upon the fact that restitution following section and suture of the cord, does not occur in the human subject, or if so, only to a slight extent.

If there is the slightest probability that the cord is not entirely destroyed, immediate reduction and fixation should be done.

"Inflammatory Conditions of the Spinal Column," by De Forest Willard, of Philadelphia, who stated that as traumatisms and neoplasms would be taken up separately, he would confine himself to tubercular inflammations. Laminectomy might be useful if pressure symptoms developed from tubercular deposits. The extent of the kyphosis seldom bears any relation to the amount of paraphlegia. Only a few patients are improved by laminectomy and the mortality is high. Conservative methods, hygiene, fixation, etc., offer more promise than operation. If any improvement is noted, continue treatment for 18 months or 2 years; laminectomy may be permitted. Operation removes the remaining healthy bone and increases the liability to meningitis. In at least one-half of the cases life seems to have been shortened by laminec-

tomy. A summary of the technic was given, and the danger of extravasation of blood into the canal emphasized. Forcible extension and immediate correction of the kyphosis he regarded as a relic of barbarism, unsurgical and unscientific. A more gradual correction, maintained by a plaster jacket, is more desirable.

"Neoplasms: Their Location and Diagnosis," by Richard H. Harte, of Philadelphia, was the next paper read. The symptoms were summarized and the statement made that no interference would be undertaken by any surgeon without the advice of a skillful neurologist. Had found 92 cases in literature, 37 of which were sarcoma, 17 of which patients are reported as cured. It seems doubtful that histological diagnosis in these cases was correct. Reported 1 case of his own. the canal opened, carefully cleaned, and the patient went on to recovery. Sarcoma are more often extra-dural than intra-dural. If the growth is intradural, the greatest care must be exercised as the danger of infection is very great, even under careful aseptic conditions.

"A Report of Three Cases of Laminectomy for Neoplasms of the Spinal Cord with Good Results," by J. Collins Warren, of Boston, who first referred to the phenomenal rarity of benign neoplasms of the cord. Two of 3 cases have already been reported, but the 3 were summarized by the author. First patient, woman of 53, who had had pain for a year before seen. Was operated upon June, 1898, and fibroma removed; perfect but slow recovery. Pain continued for some time, but for over 1 year has been absent. Second woman, 27 years, seen December, 1904; and had pain for 2 years; numbness in feet; difficulty in walking. Was operated upon and at 8th vertebra a tumor was found and removed; cellular fibrous tissue, psammoma. Recovery was rapid and is now practically complete; entire absence of pain. Third, a man of 49, intense pain, and for 16 years paralyzed; 14 years before laminectomy, but without result, though a tumor was removed. January, 1898, great pain was persistent, and paralysis became worse. Again operated upon and small tumor, endothelioma. Recovery was good and he is now well.

Discussion on the foregoing symposium on Lesions of the Spinal Cord was opened by J. C. Munro, of Boston, who doubted the value of suture of the cord. Referred to a case where bony pressure was removed after 7 years suffering, and cure followed rapidly. Simple technic in laminectomy is best. In syringomyelia operation may be quickly followed by recovery. Some of the cases of sarcoma mentioned by Harte, may be myomata, which would account for the recovery of the patients. N. B. Carson mentioned some cases of fracture of the spine, in one of which he thought laminectomy would have offered some chance for recovery. Maurice Richardson, of Boston, thought we could learn but little from a few cases and even all those reported thus far do not demonstrate what may be expected; the result of an operation will probably do no harm and the result can be no worse than if no operation is done.

Dudley P. Allen, of Cleveland, stated that some patients with injury or fracture of the spine undoubtedly recover, without operation. In some cases it is impossible to operate, or in which it may seem undesirable.

A. J. Ochsner, of Chicago, thought the conditions resulting from the injury should guide us; if pressure can be relieved by method suggested by Dr. Allen, then we have done all required; otherwise an operation is indicated. Late operation is without benefit. George Tulley Vaughan, of Washington, mentioned a case in which the immediate symptoms disappeared at the end of 10 to 12 hours; if an operation had been performed, it would have received credit for the recovery. Mentioned 10 cases, some patients operated on, others not, but all died in about the same length of time. The general discussion was then closed by the readers of the various papers of the symposium.

"Spina-Bifida" was the title of a paper by J. E. Moore, of Minneapolis, who reviewed the subject, summarized 352 reported cases, and gave the technic of the operation. Unless the patient survives the existence of the tumor, the operation is useless.

Roswell Park, in discussion, reported 7 cases, 6 patients recovering. Emmet Rixford reported 2 cases in young children, in both of which the tumor had ruptured; one died of sepsis and the other has survived, though it developed some hydrocephalus. Geo. R. Fowler indicated that the conditions underlying spina-bifida are undoubtedly the same as those in the case of hydrocephalus, and reported 2 cases of operation in very young infants both followed by death.

"A Review of the End Results in Cases of Exophthalmic Goiter Treated Surgically," was then read by Thos. W. Huntington, of San Francisco. He had operated upon 9 patients, 7 females and 2 males, from 28 to 56 years of age. Exophthalmic symptoms had existed an average of 1½ years before operation. Tachycardia present in all cases. Eight are now alive and 1 died on the 12th day. The series was then gone over in detail. Roswell Park opened the discussion by again calling attention to the lack of definite knowledge as to the relation of the parathyroids to the thyroids and the general condition. He also referred to the advisability of operation upon the cervical nerves. A. J. Ochsner said his experience was very much that of Dr. Huntington. Rapid reduction in pulse follows if there has been little traumatism to gland during operation. His first patient, operated on 13 years ago, is still alive and well. From Crile he got the suggestion of inverted Trendelenburg position. Thyroid fluid should not be squeezed out into general circulation. Antiseptics are not required, but patients do somewhat better when the wound is packed with iodoform gauze. William Mayo, of Rochester, said that the title used by Huntington was good. All cases of Grave's disease are not exophthalmic goiter. The operation is dependent upon goiter but not upon Grave's disease. Many patients with exophthalmic goiter die without operation. Has operated on some 50 and has found there is a time when too late. Anemia, edemia, myocarditis, etc., contraindicate operation. X-ray in some cases improves the patient's condition for operation. Rough handling of goiter has most to do with deaths from thyroid intoxication. We operate only on bad cases, where medicines have failed; if operated earlier, results would be better. Bush cut the surface with carbolic acid to prevent absorbtion of thyroid secretion.

Friday Morning Session.

Officers were elected as follows: President, A. Vander Veer, Albany; Vice-Presidents, J. E. Moore, Minneapolis; J. C. Munro, Boston; Secretary, D. P. Allen, Cleveland; Treasurer, Geo. R. Fowler, Brooklyn; Recorder, R. H. Harte, Philadelphia.

Cleveland, Ohio, was chosen for the next place of meeting.

For Honorary Membership, John S. Billings, New York, N. Y.; for Active Membership, George W. Crile, Cleveland, Ohio; Charles W. Oviatt, Oshkosh, Wis.; Harry M. Sherman, San Francisco, Cal., and Robert Wilkinson Johnson, Baltimore, Md.,

The executive session, at which the officers and new members were elected, then adjourned and the first paper of the scientific session was read.

"Review of 500 Cases of Gastroenterostomy, Including Pyloroplasty, Gastroduodenostomy and Gastrojejunostomy," by William J. Mayo, of Rochester, Minn.

Includes all the cases operated on by Dr. Charles H. Mayo and the writer during 14 years in which an incision was made in both intestine and stomach and plastic union established to increase gastric drainage. Death rate gives every patient dying in the hospital

without regard to cause of death or length of time after operation.

Pyloroplasty—21 cases, no death, 7 reoperations. Pyloroplasty has only a small field of usefulness. Finney's gastroduodenostomy, 58 cases, 4 deaths, 2 from other causes at a late date; only 1 death in the first 46. Large field of usefulness in narrow stricture following healing of ulcers, less useful in unhealed ulcer.

Gastrojejunostomy—421 cases. Benign—307. Death rate 6%. Last 140 cases, 4 deaths, 2-6/7%. Malignant—114. Death rate, 18%. In the last 40 including radical operations for cure of cancer, 5%.

Murphy button—157 operations, 139 anterior—18 posterior. Operation of choice after pylorectomy and partial gastrectomy. McGraw ligature—36 operations, operation of choice by anterior method in gastrojejunostomy for inoperable cancerous pylorie obstructions.

Two hundred and twenty-eight posterior suture operations. Robson's bone bobbin, 16 operations with 1 death. Mikuliez operation, transverse incision, 43 operations with 4 deaths and 4 secondary operations. Moynihan operation on 9 inch loop, 53 operations with 3 deaths, 7 reoperated for chronic bile regurgitation within 15 months. Roux-Doyon operation, 48 cases—2 deaths, 2 secondary operations. Operation of choice is the Moynihan-Peterson without a loop. Made by suture within 3 in. of the origin of the jejunum and obliquely on posterior wall of stomach with inferior margin at the greater curvature near the junction of the pylorie end with the body of the stomach. Last 80 gastrojejunostomies for benign disease, only 1 death.

Thos. W. Huntington, in discussion, emphasized the value of the operation if it can be done. The patients presenting are always in very bad condition and the improvement following operation is marvelous. Wm. L. Rodman thought we were all pretty well agreed in eliminating or greatly shortening the loop. This has practically done away with the vicious circle of former years. He called attention to several points in Mayo's technic which seemed valuable; exactly determining the place for anastomosis and marking with forceps; the use of a straight, rather than a curved needle, will shorten the time. A. J. Ochsner thought what we had learned of stomach surgery up to date was due to Mayo's work. In studying jejunal ulcers we find them more common in the anterior operation because, owing to the mechanical features of the operation, the anastomosis is not made at the lowest part and a small pouch is formed. A. Vander Veer commended highly the careful analysis of cases and forms of operation in Mayo's paper, and looked forward to further advances by the same operators. In malignant disease he makes an anterior anastomosis. J. C. Moore commented on the development of an operation; the present author has presented the whole field of Stomach Surgery in one paper. Robert Weir said that the paper contained too much meat for anyone to digest in a short time, we must study the paper. While respecting Mayo's experience, he did not consider the question settled, and the variety of methods showed this. Chas. Powers emphasized the anterior method in malignant disease. Geo. R. Fowler emphasized early operation, even for diagnosis alone, and if operation seems hopeless, no harm is done. Early and rapid operation and the posterior anastomosis are the essential points. Patients may be fed immediately; there is no necessity for waiting 5 days. J. E. Munro thought the ideal operation for the average surgeon has not been found. Short loop operation had been found very satisfactory, but not so good as the modified Roux operation. Dudley Tait referred mainly to the experimental side of the question, principally dealing with sutures and suture materials. The elastic ligature showed a more perfect opening than any other method. Mayo, in closing, called attention to the fact that he had read only an abstract of the paper. He thinks the operation still but in the experimental stage. Each operation has some disadvantages. The short-loop or the no-loop method must be the operation of the future. The Ronx operation takes too much time and only a few men are competent to do it. Results of stomach surgery are becoming better all the time, surgery of the stomach is the most important thing in surgery to-day. Mistaken diagnoses and bad results in early days of operation, have held back progress. Early diagnosis is the one essential to success in cancer of the stomach.

"A Case of Intussusception Which Became Spontaneously Reduced After Provisional Enterostomy. Remarks," was then read by M. H. Richardson, of Boston. The condition dealt with is excessively rare, if indeed any other case has been noted, and no undoubted case has been recorded. The paper was rather extensively discussed.

"Perforation of the Gall Bladder," was the title of a paper read by A. MacLaren, of St. Paul, who recited the histories of several patients and gave a general resumé of the subject and literature. De Forrest Willard, in discussion, referred to a very interesting case of traumatic perforation of the gall bladder with a resulting tumor from which 64 ounces of bile were removed. Chas. Powers also mentioned some similar experiences. W. L. Rodman, Robert F. Weir, Geo. Tulley Vaughan, Maurice Richardson, and others also discussed the paper.

"Constriction of Duodenum Below the Entrance of the Common Duct and Its Relation to Disease," was read by A. J. Ochsner, of Chicago.

"Results of Experiments in Asepsis," the closing paper of the session, was contributed by Dudley P. Allen, of Cleveland.

THE DIAGNOSIS OF TYPHOID FEVER, A PAPER ADDRESSED TO THE COUNTRY PRACTITIONER.*

By CHARLES MINER COOPER, M. B., San Francisco.

FORMERLY it seemed as though the isolation of Eberth's bacillus from a patient's blood or excreta would definitely establish a diagnosis of typhoid fever. Jurgens, however, has lately asserted that typhoid bacilli may be present in the feeal excreta, though the patient be not and has not been sick. Moreover, Blumenthal has reported two cases of gall stones in which he was able to demonstrate in the gall bladder—in one the bacillus typhosus, in the other the paratyphoid bacillus—though from neither patient could he obtain a history of any illness even remotely suggesting typhoid fever. Nevertheless, the recognition of Eberth's bacillus in the alimentary discharges is, in laboratory districts, an important diagnostic adjunct. The Drigalski-Conradi litmus-stained culture medium is the most serviceable. It is poured into round glass plates and allowed to solidify; its dried surface is then inoculated with a suspension of the fecal material; after twenty-four hours in the incubator the colonies of the typhoid bacillus are blue in color and smaller than the colonies of the acid forming colon bacilli which are red and opaque. This method is naturally of much importance from the standpoint of preventive medicine (Koch). Similarly in the later stages of the disease the causal germ has been isolated from the urine.

By freezing, incising and then gouging out the contents of the rose spots, Eberth's bacillus has been recognized both by cultivation and in section. Such work, while scientifically interesting, lacks practical diagnostic importance, inasmuch as the mere presence of typical rose spots speaks very highly in favor of a positive diagnosis.

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The isolation of the bacillus from the blood yields positive results in from 80 to 90 per cent of cases. For routine work it is best to obtain from 10 to 20 c. c. of the blood and to mix this with a large excess of bactericidal diluting bouillon e. g., 1 c. c. of blood to 300 c. c. of bouillon. This proceeding is impractical in private practice and demands bacteriological training. Puncture of the spleen in acute diseases we regard as unjustifiable, and the measurement of the specific bactricidal power of the blood, as at present, diagnostically useless.

The Widal serum test—extremely serviceable, but by no means pathognomonic, and often of no value in early differential diagnosis—has not, by reason of its complex requirements, materially helped the general practitioner. Hence, notwithstanding laboratory advances, the diagnosis of typhoid fever in general practice must rest upon the data derived from:

1st. A complete clinical bedside investigation.

2d. Simple mechanical methods not demanding bacteriological training, but requiring sufficient experience in clinical microscopy to enable one to recognize on personally-stained films the protozoa of malaria and the varieties of leukocytes. These simple mechanical methods comprise:

1. Estimation of the numbers of leukocytes per c. m. of blood.

2. Estimation of the per cent number of the different varieties of leukocytes, employing the common formula of polynuclears, large mononuclears, lymphocytes, and eosinophiles.

3. Testing of the urine for the presence of the Diazo reaction.

4. The use of Ficker's modification of the Gruber Widal test.

Data derived from clinical investigation.—The frequency of typhoid fever in California renders superfluous the customary time-worn text-book description, but it behooves us to remember:

1st. That typhoid fever, in contradistinction to typhus fever, acute abdominal diseases and lobar pneumonia, is commonly of comparatively slow onset, hence a history of an ingravescent illness with an origin dating back a few days is of diagnostic import; occasionally, however, a high fever and accompanying chill may initiate the disease.

2d. That the step-like character of the temperature ascent speaks, when present, for a positive diagnosis and that when once the temperature has begun to rise it rarely returns to the normal till the force of the disease is more or less spent.

3d. That during the course of the fever, the pulse is relatively infrequent, dicrotic, and remains regular. The association of these characters help considerably to distinguish doubtful cases of typhoid fever from acute miliary tuberculosis in which the pulse rate is higher; from basilar meningitis in which the pulse, though slow, is not dicrotic and is frequently irregular.

4th. That the spleen does not commonly enlarge till the disease has run a week's course; that this enlargement is usually of moderate degree and tends to gradually disappear during the 4th week, to recur, however, in the event of a relapse or recrudescence. In acute malaria and septicemia the enlargement is apt to occur more quickly, and in the former disease to be of greater degree. The association of influenza with enlarged spleen has, in my experience, been due to the occurrence of an influenzal attack in individuals having previously splenic enlargement, but this is not always the case (Leube).

5th. That the early symptoms suggestive of alimentary tract disturbance depend much upon the nature of the patient's food during this early stage; that the fecal excreta may present nothing abnormal; that the acute pain and vomiting so characteristic of the acute abdominal surgical affections are conspicuously absent, and that though meteorism may be present, there is no complete obstruction to the passing of gas.

6th. That the roseole are often large and first demonstrable where commonly not looked for—on the patient's back—that when typical they are probably the most important single diagnostic manifestation. Indistinguishable spots, however, occur in acute miliary tuberculosis, cerebro-spinal meningitis and trichinosis.

7th. That an early bronchitis often exists, and to the hasty observer may cloak the true disease.

8th. That the typhoid bacillus may at the very inception of the fever invade other organs than the colon, so that symptoms due to their involvement may dominate the clinical picture and produce what has been termed nephro-typhoid, pneumo-typhoid, pleuro-typhoid, meningo-typhoid.

9th. That herpes and jaundice rarely occur; that conjunctivitis and coryza are extremely uncommon, and that the occurrence of profuse or persistent sweating at the height of the fever is strongly opposed to the existence of uncomplicated typhoid fever.

10th. That typhoid fever in the young tends to run a mild course; in the aged an irregular and a comparatively apyretic one.

Data derived from the simple mechanical proceedings alluded to:

1. The estimating of the number of leukocytes per c. m. m. of blood will demonstrate that there is not only no leukocytosis but a leukopaenia. The number of white cells per c. m. m. varies in uncomplicated cases from 3 to 7,000. A count of from 7 to 9,000 throws doubt upon the presence of such an uncomplicated attack, and a count of over 9,000 is evidence against the probability of its existence (Kast & Gutig).

2. Apparently at the onset the percentage proportion of polymorphonuclear leukocytes is in slight excess. This picture, however, soon changes and a relative increase of the mononuclear leukocytes occurs. Eosinophiles are present in small numbers. An exacerbation of the typhoid toxemia or a recrudescence may cause a further drop of the leukocyte count, and the writer has seen them fall to from 1,000 to 2,000 per c. m. m. If a complication arises and be due to a mixed infection the total number of leukocytes may increase or a percentage rise of the polymorphonuclear may occur. In suspicious cases the protozoa of malaria, or pigmented leukocytes, are of course sought for. This leukopenia is an early phenomenon and is of much service in distinguishing a typical cases from septic conditions in which a leukocytosis or a marked relative polymorphonuclear increase commonly happens.

By use of Wright's stain the whole investigation can be completed in a few minutes and is to be strongly advised as a routine measure.

3. The Diazo reaction in the urine should be similarly and regularly sought for. The necessary reagents are readily obtainable. The technic is very easy; its performance requires only a few seconds. The reaction commonly appears about the 4th day of the disease, and if in a suspected case of more than one week's duration it be absent, considerable doubt is cast upon the suspicion. This reaction is, moreover, of considerable diagnostic value during the course of the disease (Broadbent). It tends to disappear by the end of the second, or in the course of the third week. Its persistence beyond that period only occurs in severe cases, and its presence, notwithstanding a fall of temperature, indicates that the infection is still active or that a complication due to the typhoid bacillus is present, or that a relapse or recurdescence is imminent. On the other hand, if it suddenly disappears without concomitant improvement we must suspect some secondary infection or renal impermeability to the coloring matter (a grave sign). The reaction, however, is by no means pathognomonic, since it may occur in the course of typhus fever, acute tuberculosis, pyemia septicemia, scarlatina, diphtheria, measles, pneumonia, and trichinosis,

but the association of its presence with other suggestive symptoms and signs is diagnostically very valuable. A positive finding using the reagents in a proportion of 1 in 150 is said to much more strongly suggest typhoid fever (Cummins).

4. Ficker's modification of the Gruber-Widal test: The Widal reaction, as you well know, is held to be positive if a clumping of Eberth's bacilli occur in twenty minutes, when a drop of a patient's serum is mixed with forty drops of a recent typhoid bouillon culture. It is commonly not present till after the first week of fever but is positive during some period of the disease in 95 per cent of cases. It may, however, occur in malignant endocarditis, tuberculosis, septic conditions, and in patients with jaundice. Nevertheless it is of extreme value in medium and late diagnosis, particularly in differentiating irregular continuous fevers of doubtful origin, e. g., the so-called mountain fevers; but the necessity for a stock typhoid culture and for bouillon subcultures has hindered the wide adoption of its routine use. Fortunately Ficker has lately succeeded in preparing a fluid containing dead typhoid bacilli which answers the same purpose as the typhoid bouillon cultures. His little outfit, which I here show you, is marketed by Merck. It consists of a bottle containing the diagnostic fluid—of some sterile salt solution 7%—a graduated pipette, a cupping glass and a few small pointed test tubes. The fluid diagnosticum is a slightly cloudy sterile liquid that in a dark, cool place will maintain its efficacy for a long period of time. The technic of its use is as follows: 2 c. c. of blood is obtained from the patient and set aside to cool. The serum which separates is diluted ten times with sterile normal saline solution. One-fifth of 1 c. c. of this 1-10 dilution is dropped into test tube A in which four-fifths of 1 c. c. of the diagnosticum has been previously placed. This is well mixed. We thus have in glass A a dilution of 1 in 50; in glass B is prepared in a similar manner a dilution of 1 in 100. The third glass contains the suspension of dead typhoid material without any serum. The tubes are allowed to stand from ten to twenty hours. A positive reaction manifests itself in a clarification of the fluid and an agglutination of the typhoid bacilli in the centre and bottom of the glass. The blood has been obtained by incision, wetcupping, or puncture of a vein. I have often obtained the necessary quantity from three deep punctures of the earlobe, collecting the blood in one of the pointed test tubes, using in one day only one dilution.

The value of Ficker's modification of the Widal method has been amply vouched for (Ficker-Skutesky-Walter) and its simplicity should insure its wide employment. In twelve cases of Dr. Jellinek's and my own it had the same significance and ran parallel with the Widal. The correlation of the two sets of data, i. e., those purely clinical with those derived from the simple mechanical measures described, will suffice in almost all cases to definitely determine whether typhoid fever be or be not present. Nevertheless, by reason of the fact that similar symptoms may arise from many acute toxemias there are quite a number of diseases with which typhoid fever is not infrequently confused. These imitating or imitated pathological states may be conveniently divided, from the standpoint of differential diagnosis, into two classes, and each class into two subgroups.

Class 1. Includes diseases of acute onset in which an immediate diagnosis is imperative, as the necessity for surgical interference may be urgent.

Subgroup A of this class is represented by diseases of intraabdominal origin, e. g., acute appendicitis, puerperal sepsis.

Subgroup B by diseases of extra abdominal origin, e. g., acute osteomyelitis and mastoiditis.

The differentiation of sub-group A from atypical attacks of typhoid fever is facilitated if we remember:

That in the former there is a polynuclear leukocytosis; in the latter, a leukopenia.

That many of the former are apt to begin with acute pain and vomiting; the latter, in adults, rarely so.

That in the former, in addition to the general symptoms there are, if sought for, local signs of an underlying diseased structure, e. g., the segmental cutaneous hyperesthesia and local rigidity in acute appendicitis, and the vaginal evidence of an infected uterus in puerperal sepsis.

To distinguish subgroup B, we have only to remember that the bedside investigation comprises not only a thorough examination of the trunk proper, but a clinical survey of the whole body, irrespective of the lack of any symptoms referable to the extremities.

Class 2. Consists of diseases which do not require operative measures, whose course the puzzled clinician can expectantly watch.

Subgroup A includes acute miliary tuberculosis, cerebro-spinal fever, trichinosis, in the course of all of which typical rose spots may develop.

In acute miliary tuberculosis the rapidity of the pulse and the early sweating, the hurried respiration, the cyanosis, dyspnea and often remittent temperature, should serve as correct guiding symptoms. When a basilar meningitis coexists the pulse, though often slow, is not dicrotic and is frequently irregular. Moreover, there are both local and general signs of a true meningitis and tubercles are not infrequently present in the choroid.

In cerebro-spinal fever, in addition to symptoms denoting the presence of a true meningitis, a leukocytosis is the rule, and a stained film of the centrifuged cerebro-spinal fluid derived from lumbar puncture, will not infrequently immediately establish the diagnosis. In some cases of trichinosis in the service of Dr. Herbert C. Moffitt, whose course it was my privilege to watch, the imitation picture of typhoid fever was very close. These patients presented the so-called typhoid state, enlarged spleens, rose spots, and a Diazo reaction. The first symptoms to render us suspicious of their non-typhoidal character were muscle tenderness and much sweating. Later, eosinophilia and muscle removal demonstrated a trichina infection.

Subgroup B comprises typhus fever, influenza, malaria, maliguant endocarditis, septicemia, and central pneumonia. In these diseases typical rose spots do not appear. In addition to this very valuable distinguishing clinical manifestation characteristic of the subgroup, we would draw attention to the following helpful facts:

That in typhus fever the onset is more sudden, the rash petechial in character and of wider distribution, the conjunctiva injected, and the face commonly suffused.

That in influenza there is an initial coryza.

That in malaria the stained blood films will show, if not the protozoa at least pigmented leukocytes, and the fever will specifically react to quinine.

That in maliguant endocarditis leukocytosis is the rule and sweating is common. Heart murmurs are usually present and symptoms due to infected infractions frequently occur.

That in septicemia careful search commonly reveals a primary focus, leukocytosis is usually present a slight jaundice is not infrequent. Skin and retinal lesions often appear.

That in central pneumonia the leukocytosis is often considerable and the respiration quickened. In hospitals the fluoroscope and radiogram will here be found of much service. In country districts the study of the diaphragm phenomena, and a minute examination of the entire pulmonary area will commonly suffice to determine the diagnosis.

The recognition of the types, pneumo-typhoid, pleuro-typhoid, nephro-typhoid, and meningo-typhoid, is aided by the fact that the general toxemia is pro-

portionately greater than one would expect from the extent of the complicating visceral involvement, and once the suspicion of an underlying typhoid infection is engendered, the diagnosis is comparatively easy.

Pneumo-typhoid is, however, closely imitated by acute tubercular broncho-pneumonia. As aids in distinguishing these we would recall: The higher leukocytosis in tubercular pneumonia; the fact that a typhoid pneumonia is usually basal, the tubercular variety apical; and that daily examination of the sputum will finally demonstrate in the last named disease the presence of the tubercle bacillus.

Chronic tuberculosis and starvation may clinically imitate apyretic typhoid fever. In two cases that the writer has seen, the presence of rose spots, Diazo and Widal reaction served to establish the diagnosis of the latter. Finally there are a series of diseases which till recently have everywhere been grouped under typhoid fever. They appear to be infections caused by the para-typhoid bacillus alpha and the para-typhoid bacillus beta; the colon bacilli, or by various combinations of these germs with or without Eberth's bacillus. Their differentiation is only possible by culture methods or through their respective serum reactions. The marketing of a fluid diagnosticum for each subgroup, similar to Ficker's for typhoid fever, would render generally available a simple method of diagnosis, and such we may confidently expect, for this has already been done for one of the para-typhoid strains.

Two cases illustrating the difficulties of diagnosis:

Case 1.—A. B., aged 26; previously healthy; was admitted to hospital with a history of four days' sickness commencing with malaise and headache. Examination showed a dried furred tongue; a dull expression of face; temperature 103; pulse 100; regular and dicrotic; respirations, 20 to 30. The abdomen was very rigid; the skin hyperesthetic, but there was no marked distension or deep tenderness. The leukocytes were 12,000, the polynuclears being 80 per cent. A Diazo reaction was present in the urine. The Ficker reaction was negative. The spleen and liver could not be satisfactorily palpated on account of the rigidity. The question arose: Was this an acute intra-abdominal lesion—typhoid fever and an intra-abdominal lesion—typhoid fever and a patch of pneumonia, with consequent abdominal wall rigidity—or central pneumonia alone? Careful examination of the lungs showed on the left lower axillary region a dullness which at first was ascribed to the upper splenic area, but over this there was slight increase of vocal resonance and a slight catch in the inspiration. A diagnosis of a patch of central pneumonia was made, the abdominal rigidity thus being explained. But this alone would not satisfactorily account for the pulse temperature ratio, and the positive Diazo reaction; moreover, in an uncomplicated case of central pneumonia in a previously strong individual, a higher leukocytosis should have been expected. Therefore we believed we had to do with a case of typhoid fever in which a patch of pneumonia had occurred, the latter causing the abdominal rigidity. The future history of the case demonstrated the correctness of this diagnosis.

Case 2.—B. C.; aged 20; had had double apical tuberculosis with consequent apical dullness, etc.; began to suffer from breathlessness on exertion. Examination revealed, in addition to the old tubercular trouble, anemia-hemoglobin, 60 per cent, and a dilated heart. While under treatment for this he developed headache and fever. The fever rose in a typical typhoid manner to from 104 to 105°. The pulse (patient taking strychnine) regular, but not dicrotic, varied from 110 to 120. Respirations from 28 to 38, but there was no dyspnea or cyanosis. There was a slight cough. The sparse sputum contained no demonstrable tubercle bacilli. The spleen was slightly enlarged. The leukocytes numbered 5,500 per c. m. m. (polymorphonuclears, 60 per cent; mononuclears, 40 per cent). The tongue was moist. Marked sweating was present. Faint bronchitic rales were audible over the chest, and there was a patch of pneumonic consolidation in the right interscapular region. A marked Diazo reaction was present, and finally a few atypical rose spots developed in the abdomen. No Widal or Ficker. The eye-grounds were normal. The differential diagnosis of this case lay between typhoid fever and acute miliary tuberculosis. In favor of the latter there was a known primary focus; the slightly hurried pulse and respiration rate; the marked sweating; the moist tongue; the right interscapular dullness. The bronchitic rales; the Diazo reaction; the slight splenic enlargement, and the atypical rose spots could not be made use of for they might occur in either affection. In favor of typhoid fever there was the typical temperature ascent—its nonremittent character; the leukopenia with the excess of mononuclear forms, and the absence of dyspnea and cyanosis; whilst many of the features recorded as being in favor of acute miliary tuberculosis could be partially ascribed to the patient's previously debilitated condition. Consequently, we favored a diagnosis of typhoid fever, but from a prognostic standpoint, reserved our final decision till the Ficker reaction appeared and the lung symptoms abated.

THE ROUTINE TREATMENT AND COMPLICATIONS OF TYPHOID FEVER.*

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TYPHOID fever is such a variable disease in its manifestations in different epidemics, in different individuals, and at different ages, that to lay down definite rules for its treatment is impossible. The best that we can hope to do in such a paper as this is to present a general plan which is applicable to a considerable number of the cases that come under observation; but one must remember constantly that in no other disease does the personal equation of the patient count for more than in typhoid. The care of such a case involves not only a study of the condition of all the organs of the patient, but also of his surroundings, his past habits of eating and living, and his former illnesses. It is particularly important to ascertain as early in the disease as possible all the weak points of the patient, so as to begin early to bolster up unsound organs or to endeavor to relieve them of undue strain in their struggle against the typhoid toxins or in their efforts of digestion, excretion or general metabolism. One should at once brush aside the idea that he is dealing purely with an intestinal condition and remember that we have a general infection which is producing degenerative changes in practically all of the more important and more active cells of the body and that it is our duty to consider all of these cells rather than to chase that will-of-the-wisp, intestinal antisepsis. Not that some control over fermentation within the alimentary canal may not be most desirable and important particularly in aiding nutrition and in the regulation of the size of the lumen of the bowel, but that the paying of too much attention to this point may lead one astray and cause the inauguration of a line of treatment detrimental to the best interests of the body as a whole.

The first great question in the selection of a treatment for a given case of typhoid fever is, are we justified in neglecting serum treatment and the so-called specific treatments of various sorts and in the adoption of a plan which practically amounts to a symptomatic treatment alone? I think that we are. With our accurate bacteriological knowledge of this disease and the magnificent results obtained with the antitoxin treatment of diphtheria we naturally look to a serum treatment of typhoid. Such a treatment will undoubtedly come in time and along with it a more satisfactory prophylactic measure than the present one of Wright and then we will be in a position to cope successfully in our backward fight against the ingestion of our own excreta. Certainly at present our vaunted civilization is a sorry structure, when we daily pass through the alimentary canals of hundreds of thousands of our citizens, organisms derived from the discharges of their neighbors.

The nearest approach to a satisfactory serum is that of Chantemesse who reports on 765 cases showing a 5% mortality. The adoption by him of hydrotherapeutic and other most satisfactory measures for the treatment of the disease along with his personal care of the cases reduces the apparent brilliancy of the results as compared to the other Parisian hospitals. Besides, the results from the use of this serum in the hands of others yielded a mortality of 8.7%. Certainly his results are not of such a striking character at present as to impel one to adopt his treatment and I think I am safe in saying that the use of any serum available would be a pure experiment. As regards the various so-called specific remedies widely advertised and often strongly endorsed, it seems to me that it is a much safer plan to protect the organs of our typhoid patients, already busy with as much or more than they can handle, from the necessity of unravelling their often complicated chemical formulæ and turn the task over to the advertising departments of our medical journals where it more properly belongs. A considerable percentage of ty-

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phoid patients, and all of those in some of the milder epidemics, will get well anyhow with ordinary care in spite of the drugs used, and hence comes the marvellous results obtained from some agents. While the so-called specific mercurial treatment so much lauded by some may work well in some epidemics and with mild cases, I am satisfied that in severer forms of the disease, particularly the hemorrhagic, its systematic use is attended with greater dangers than we have any right to assume.

The most advisable plan for the treatment of a given case is the adoption of proper dietetic, hydrotherapeutic, and symptomatic measures. These, when carefully used, combined with absolute rest, and under the control of a good nurse, who has at her command facilities and orders for all ordinary emergencies will not only give a low mortality rate, but will shorten the time spent in bed as well as add to the patient's comfort. After the patient has been put in a good bed, in a well ventilated sunny room, and a competent nurse has been installed the first duty of the physician is not only to provide careful written directions for all that is to be done, including the method of sterilization of discharges, and the signs and symptoms of the ordinary complications with their first treatment, but also to see that there are at hand the emergency drugs and supplies, including a simple saline infusion outfit, that may be needed. This involves a certain amount of expense, but in the long run will save time and life.

Food.—The selection of a proper food should not be according to rote; but, after getting some idea of the patient's ordinary gastrointestinal condition, an effort should be made to select some form of milk food that seems most likely to be well borne. There need be no great hurry as no food at the onset seems often to be an advantage and this fact has led to the so-called starvation treatment which when carried too far is absurd. The physician who understands the modification of milk for infants and who will adopt similar plans in preparing milk for typhoid patients will have very little to say against milk as a food in typhoid. One must consider in selecting a food not only the diminished digestive activity of the stomach and bowel, the intestinal ulcers, but also the parenchymatous degeneration of the liver with its disturbed metabolisms, the condition of the heart muscle, particularly as regards the nutrition it requires, and also the probability of a nephritis occurring during the course of the disease. For all these conditions milk, if properly modified and slowly given, is the best food.

Regular inspection of the stools for undigested fat particles and curds combined with careful observation of the tongue and abdomen is of importance. The amount and interval of feedings should depend entirely upon the condition of the patient and his ability to digest food. To pour the same quantity of food of the same strength through the torrid parched mouth of a patient with a coma vigil as one would use the week before such a condition occurs is bad practice. The modification of the food should go hand in hand with the changes in the patient's condition. The addition to the milk of lime water, Vichy water, Shasta water, soda solution, or ordinary water or the peptonization or modification of the milk with the prepared farinaceous foods, the use of junket, whey, buttermilk, toast milk, celery milk, onion milk, whiskey and milk, coffee and milk, tea and milk, may all be used. Cocoa and chocolate are sometimes well borne, but are usually too taxing for the impaired digestion of the typhoid patient.

The use of large amounts of broths during the course of the disease, to the exclusion of other foods is pernicious not only from the standpoint of the stomach—as witness the dilated stomach often seen after typhoid—but also from that of the kidney with its present or impending nephritis. Broth occasionally is of service if well strained and properly made, and while its nutritive value is not great, the contained gelatine is of some service and can be augmented by the addition of commercial gelatine. As regards the use of other foods the conservative plan is surely the safer. One who follows up a number of typhoid patients for a couple of years after recovery and sees how many of them have had difficulty in reestablishing a normal state of the gastrointestinal tract is particularly struck by this. The use of eggs, toast, gruels, or other soft foods may do well in a certain percentage of cases, but can do great harm in others, and their use is always attended with risk, and is very seldom necessary if proper care is exercised in watching the milk digestion. When milk will do well why should one compel any patient to run a greater risk by the administration of other foods? When possible it is best to continue the use of milk foods not only up to the end of 10 days after the fever has disappeared but to make milk the basis of the diet for some time afterwards.

After the milk, broths, junket, ice cream, gelatine, and gruels which may be gradually added to the diet, comes toast, eggs, well cooked rice, and mush, then a chop and a gradual return to the 3 simple meals a day. But the food of these meals should be regulated for some months not only with the reference to the possibility of a late perforation, but also to protect the gastrointestinal tract from greasy, fried foods, pastry, made dishes, hashes, nuts, dried or preserved fruits, etc. Only in this way can one hope to get a prompt return of good digestion and satisfactory nourishment.

Water.—Hand in hand with the feeding of the patient should go the administration of water, preferably plain, but some simple alkaline water such as Vichy if the urine is irritating. An effort should be made to give the water before the feedings and to keep track of the amount. Some patients will stand very large quantities and show a beneficial effect from its use. Its administration is logical and should be consistent. The addition of grape juice, weak tea or coffee to it will often make it more palatable and beneficial particularly if the kidneys are inactive.

Hydrotherapeutic measures.—The simplest method for the reduction of the temperature is the combination of the abdominal coil and head ice-cap with sponge baths either cool, cold, or ice cold. While it is true that the benefit derived from the use of the coil is probably purely that of reducing the temperature, except perhaps in controlling the circulation of the abdomen, and not at all tonic or stimulating, as are the sponge baths, the combination of the two is most effective. Not only is one able to keep the temperature constantly from three-fourths of a degree to one and a half degrees lower than otherwise but the sponges come less frequently and do not tax the patient so much. The coil should be kept on constantly, except perhaps for a short time in the morning, whenever the temperature is over 100° F. When the temperature is high it can be re-enforced with a second coil or a superimposed ice-cap. If the temperature rises over 102.5° or 103°, a tepid sponge should be given; if still higher a cold or ice cold sponge bath. If then the temperature is not affected, and the nervous symptoms are great, an ice pack or a sheet wrung out of ice water applied with fairly vigorous rubbing of the trunk and limbs are best used. Occasionally the coil is not well borne, particularly by fat, weak or anemic individuals and its use should then be only partial or completely discontinued. In some cases even the sponging seems to do harm and to lead to continued cyanosis and chills. Such patients do better without the use of cold at all, and one for comfort need only remember the countless people alive today who have gone through typhoid, not only without water externally but frequently with almost none at all internally.

While the system of tub baths does admirably for hospital routine and while its mortality results have been satisfactory, I do not feel that such baths need be introduced in the care of private patients, partic-

ularly where attentive nurses are at hand. Their use in many cases seems to me needlessly severe. The amount of shock is out of proportion to the good accomplished and the amount of movement required is a great objection where there is any liability of hemorrhage and perforation—and such liability is present in most cases of typhoid. There is a wide difference in the susceptibility of individuals to hydrotherapeutic measures, and because such satisfactory results have been obtained by tub-baths does not mean that each individual must be put through that routine in order to better his chances of coming out alive from the disease. The general point it seems to me is the adaptation of hydrotherapeutic procedures as well as the diet to the individual, rather than to try to force our patients through an inflexible treatment in the hope that all but 6 or 7 in a hundred will escape with their lives.

Medical treatment.—Every drug used in a case of typhoid fever should have its action on the various organs of the body carefully analyzed. One should ask himself such questions as "Will the benefit derived from this hypnotic powder be greater than the possible depression of the heart action"; "Will this drug have a favorable enough action on the fermentation within the bowel so that we can neglect its possible irritating effect on the kidney?" In other words one must know as well as he can the state of the various organs of the body, and the action of the drug given upon each, before indiscriminately using the first thing that seems apt to allay the symptom most troublesome for the time being. In the routine treatment of this disease there is no drug to be used throughout the course of the illness which has been demonstrated to be uniformly useful and harmless. Recently Caiger in the London Bradshaw lectures has made special claims for oil of cinnamon and Cannoday in this country for hisulphate of sodium. Similar claims have been urged for a host of other products, prominent among them oil of eucalyptus, turpentine, sulphurous acid, and acetozone but we are safe in discarding all of these and either giving no routine drug or selecting some simple form of treatment perhaps including some of the above agents which we can change from time to time as seems best.

Intestinal antiseptics are often beneficial in allaying undue fermentation in the bowel and any of the ordinary ones may be used provided the kidney is carefully watched. Salol and guaiacol carbonate 1½ grains each every 3 or 4 hours has often been of service to me particularly early in the disease. Oil of turpentine in emulsion in small doses, frequently repeated often works wonders where the tongue is dry, the abdomen distended, and the patient in a profound toxemic state. It is particularly serviceable after hemorrhage from the bowel and in tympanitic conditions when combined with hot turpentine stupes externally and the rectal gas tube; but the kidney and bladder need to be watched.

The various antipyretic drugs should be used very sparingly if at all in typhoid fever. Their administration is usually needless, dangerous, and if long continued almost criminal. One can have no idea in typhoid fever what strain will be thrown upon the heart in the days or weeks to come and should not mortgage the future by the use of depressant remedies. In this connection I might note that I am impressed more and more with the desirability of greater care in the selection of drugs for the treatment of the earliest symptoms of typhoid. One must think of typhoid as a possibility in all cases of headache, indigestion, etc., particularly with associated fever, and until the case becomes clearer not undermine the future of the patient with large doses of depressant drugs. While one may escape quite happily in mild cases from the usual routine of severe cathartics, coal tar products, quinine and mixed diet, with only limited restriction of activity, that is apt to prevail the first week of the disease, seldom can one fail to see the detrimental effect of such treatment in severer cases. My point is, that where typhoid fever is at all a likely diagnosis it is desirable to resist the temptation to relieve the patient's symptoms at the probable expense of the future; particularly is this true of the often severe headache that inaugurates the disease. Rest, soft food, external applications and the understanding cooperation of the patient will lead to prompter diagnoses and more satisfactory outcomes than helter-skelter treatment with its uncertainties of temperature and masked symptoms.

Stimulants are frequently required in typhoid fever and should he carefully selected. The question of the use of alcohol comes at once to the fore. In many cases it is most helpful particularly where there is inability to give enough food or where pneumonia is present and where the state of the kidney permits its use. Two to 6 ounces daily will do no harm for a short while if a stimulant is indicated and one can readily discard it if it produces untoward results or is ineffective. Far more reliable for routine use is strychnine which can be given in fairly large doses without harmful effects. It is better administered in small doses frequently repeated rather than in larger doses far apart. The point made by Cabot against strychnine and alcohol that they do not raise the blood pressure as much as a meal does not seem to me conclusive. What is wanted is not necessarily a higher pressure but a more adequate circulation to the various tissues of the body which can readily be brought about by proper interaction of the heart and vasomotor mechanism under the influence of drugs of hydrotherapeutic measures and without necessarily an increase in the blood pressure. The best method of keeping up a waning heart in typhoid is by the alternation of stimulants one every hour or oftener—strychnine, then whiskey, then caffein, then camphor, then strychnine again, etc.—rather than a massive dose after a long delay, for then the stimulant causes a sharp flogging of the jaded heart muscle rather than the constant steady persuasion of alternate doses.

(Digitaline in doses of one-fiftieth to one-hundredth grains is often of service when combined with other stimulants, particularly when the pulse is weak and fast. Caffein citrate either in powder or as black coffee is useful, particularly late in the disease, and the results from its use when administered hypodermatically in hot solution are often striking.)

Nitroglycerine combined with strychnine or other stimulants is particularly serviceable when administered in solution upon the tongue, but its vasodilator effect should be kept in mind when hemorrhages are likely. For marked circulatory disturbances particularly collapses, camphorated oil 10%, m xxv, ether and oil ää m xxv, tincture musk 15 minims, brandy m L epinephrin 1-1000, 25 m hypo or aseptic ergot xxx minims, may all he used hypodermatically in alternation at intervals or in rapid succession in desperate cases.

Next to stimulation in importance comes the regulation of the bowels. For constipation calomel in divided doses is often of great service but I have seen hemorrhage immediately following its use during the third week. The simplest and best measure is the administration of milk of magnesia or a saturated solution of epsom salts in small frequently repeated doses. Vegetable cathartics should not be used except during convalescence. Enemas should he small in amount given low and used with great care. An ounce of glycerin in 4 ounces of water is most effective and can be used with safety after the arrest of peristalis induced by the treatment of hemorrhage. The addition of turpentin, soap, salt, or the use of oil may sometimes be necessary, but the local effect upon the probable colonic ulcers both from the quantity and quality of the enemas should be constantly kept in mind. The use of saline enemas for absorption or in case of nephritis, hemorrhage, etc., should he carefully guarded and not too frequently repeated in order to avoid overdistension. Suppositories are often safer than enemas. As a rule it is wiser to open the bowels

each day in most cases, although in some every other day is often enough.

For diarrhea starch and opium enemas are usually sufficient and effective.

Sedatives.—Heroin hydrochlorid given hyperdermatically one twenty-fourth to one-twelfth grain is a very useful sedative and, as it interferes but slightly with the bowels and rarely causes vomiting, it may be used repeatedly. Hyoscine hydrobromate one two-hundredth to one one-hundredth grains hypodermatically will frequently quiet marked nervous excitability and delirium. Morphine is objectionable and not as effective as a grain of powdered opium by mouth. Occasionally when the heart permits one can use, with satisfaction, particularly during the recovery stage, veronal, chloretone, bromides or chloral by mouth or preferably in mucilaginous enemata. During the height of the fever hydrotherapeutic measures excel drugs in sedative effect.

Diuretics.—Water, small normal saline enemas and grape juice are the simplest and best diuretics. Occasionally when there is marked pain on urination with burning scanty urine alkaline mixtures or hexamethylene-tetramin is helpful.

The management of convalescents is often as difficult as it is important. Careful attention to details of food, rest, exercise, the amount of reading, emotional disturbances, etc., will aid in a prompter return to normal health. Often one can establish the individual upon a saner and more hygienic basis of living. Of importance is the control of exercise in order that there may be no undue strain upon the weakened heart muscle. The resumption of ordinary duties too soon after the illness is often detrimental to future health. Emotional disturbances are often harmful, and a mental shock may bring on a relapse.

Complications.—The so-called complications of typhoid are of such common occurrence that one is justified in expecting them in every case, and in preparing emergency measures for their treatment. In the 88 cases that have come directly under my observation there have been 11 cases of severe intestinal hemorrhage, 4 cases of perforation, 9 cases of abscess of submaxillary gland, elbow joint or elsewhere in the body, 6 pneumonia, 19 circulatory collapses, 20 marked nervous symptoms, subsultus tendinum, marked delirium, and coma vigil, 6 endocarditis, 3 periostitis, 1 false membrane in throat, 5 venous thrombosis of femoral vein, 1 acute infection of the gall-bladder, 1 post-typhoid insanity, and a considerable number of cases of nephritis and cystitis of varying degrees of severity.

It is true that most of these cases were seen during a severe epidemic, and were probably of the so-called mixed-infection type, as witness the number of cases of endocarditis and abscess formation. Many of these cases were hemorrhagic in character, and had not only repeated intestinal hemorrhages, but in some cases severe epistaxis, hematemesis (with acute congestive inflammation of the gastric mucous membrane, but without ulcer, as shown at autopsy), and bleeding from the uterus, bladder or kidney. Of these 88 patients, 6 died—2 of perforation, 2 of repeated hemorrhages and 2 at the end of about 6 weeks from endocarditis with embolism, and with marked degeneration of the heart muscle and liver.

Perforation is a most serious event in typhoid, and demands at once the best of care, medical or surgical. There is a tendency at present to think only of the operative treatment of this complication, based on the brilliant results obtained under the best possible hospital conditions, but in any given case, particularly outside of the hospital, one must weigh all points carefully before deciding on such a step. One must be sure of the patient's condition, operate at once, and be provided with means to meet the most difficult kind of abdominal work. Undue manipulation of the bowel, a little mixed infection, the inability to properly suture the diseased intestine, may all have grave consequences. Of course the risk of operating for perforation during convalescence is much reduced. Of the 4, possibly 5, cases of perforation that came under my observation, none of the patients were operated upon; 2 died, 1 of a second perforation high up in the ileum several days subsequent to the first perforation in the cecal region. It is to be hoped that all cases of operation for perforation will be reported, instead of, as is often the case, only those that turn out well.

Severe hemorrhage is only second to perforation in seriousness as a complication in typhoid. In all the fatal cases in my series, the patients had hemorrhages at some time during their illness. Very moderate bleeding is often of no great consequence, and demands no treatment aside from caution in feeding. It is probably to this fact that we owe the numerous measures lauded as so useful for hemorrhage. The use of epinephrin for this condition has lately been much before the medical public. I think that there are grave objections to its administration, and that its value is yet to be proved. I have seen it fail absolutely in 2 desperate cases of hemorrhage.

Collapse. Collapse is a complication that if promptly met with strong stimulative procedure need not be a prominent factor in causing mortality.

Nephritis. Nephritis as a complication is often neglected in typhoid. Too often in many of the profound cases the symptoms of uremia are grafted onto the typhoid picture and no attention is paid to them. Careful measurements of the urine, and microscopical examinations, will make the situation clear. Curschmann of Leipsic has made a study of the matter, and reports that one-half of the patients having severe nephritis die.

Myocarditis in greater or less degree must be dealt with in every case of typhoid. It is to be particularly thought of during convalescence and in patients that do not regain their former health after the illness. Rapid heart action is of common occurrence during the resumption of ordinary movements after typhoid, but when the heart rate remains constantly high, or it requires a prolonged rest for the heart to return to normal after moderate exercise, great care is necessary. Recently considerable attention has been called to this disease as a prominent factor in the production of early arteriosclerosis, and there is much to bear out the harmful influence of the typhoid toxins on the blood vessels of the body.

These last 3 conditions—nephritis, myocarditis and arteriosclerosis—should be kept in mind in each case, so that when we discharge our typhoid patient, he may not only have been safely carried through the critical stage of his disease, but also left with as few scars as possible to mar his future health.

SURGERY (IMMEDIATE) OF PERFORATED TYPHOID ULCER, WITH REPORT OF CASE.*

By F. E. C. MATTISON, M. D., Pasadena.

WHEN your chairman requested me to prepare a 10-minute paper on the above subject, being a part of the symposium on typhoid fever, it seemed to me that it might be an easy task, but I find that to condense the topic sufficiently to come within my time limit may spoil what little I have to say. I have to acknowledge my indebtedness to the works of Kean, Cushing, Haggard, Van Hook and many others, as I shall quote very freely from them.

Historical notes.—Since the masterly resumé on the subject in 1888 by Kean (Surgical Complications and Sequels of Typhoid Fever), in which he states that Leyden, in 1884, was the first who suggested that a perforated typhoid ulcer should be treated surgically, much has been written upon this subject, and I shall merely touch upon a few facts. In the same year Mikulitz reported 3 cases of peritonitis which he had treated surgically, one of these being a case of perforation in typhoid fever. Prof. James C. Wil-

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

son of Philadelphia was the first writer to suggest, in 1886, that operative measures should be instituted in typhoid perforation. The first operation in a positively known case of typhoid was reported by Lücke in 1884; in the same year Bontecou operated on another patient. In Keen's Monograph he reported 83 cases, and later, in 1900, reported a total of 153 cases, with a percentage of 23 recoveries.

Schultz found that peritonitis from intestinal perforation took place in 1.2% of cases in Hamburg in 1886 to 1887.

Lubermeister found intestinal perforation in 1.3% of over 2,000 cases in Basle between 1865 and 1872.

Haggard found that perforation occurs in men in 80.9%, and in women in 19.1%; that it is very rare in children, and that it also occurs in 2.5% of all cases of typhoid.

Murchison gives the death rate from perforation in typhoid fever as over 90% to 95%.

Weller Van Hook, in July, 1901, reports the first case of recovery from operation for perforated typhoid ulcer in America, the first case reported being that of Mickulitz, in 1884.

Holscher found perforation in 6% of 2,000 cases. Murchison in 10.38% of 1,721 cases.

In 4,680 cases collected by Fitz, the mortality was 6.58%. In 444 cases tabulated by Fitz, 71% were in men, and 29% were in women.

In March, 1903, Charles A. Elsburg (*The American Annals of Surgery*, July, 1903) found 131 cases in addition that had not been reported, making a total of 289 cases reported, with 75 recoveries, or 25.9% recoveries; 25 of these individuals were less than 25 years of age.

Richard H. Hart (*Annals of Surgery*, July, 1903) analyzes 322 cases. W. D. Haggard (*American News*, July 16, 1904) collected 295 cases up to May 1, 1903. He estimates that perforated typhoid ulcer occurs in 500,000 cases a year in this country alone; that the general death rate is 10% to 15%, it making a grand total of 50,000 or 75,000 per annum.

Osler claims that one-third of the deaths from typhoid fever are due to intestinal perforation. Taylor, that 25,000 deaths occur yearly from this accident.

In Hart's report he analyzes 332 cases, giving 87 recoveries, with 245 deaths, making a mortality of 73.79%.

Cushing (*Annals of Surgery*, May, 1901) reports 12 cases in Dr. Osler's clinic at Johns Hopkins Hospital in which the patients had been operated on, with 5 recoveries, making a total of 41.6% recoveries. He lays great stress upon the distinction between operation for intestinal perforation in typhoid fever, and operation for acute diffuse peritonitis consequent upon such lesions. Cushing also advised operating under a local anesthetic.

Morris Menges (*Journal of the American Society*, April, 1905) in a paper read at the 55th meeting of the American Medical Association, June, 1904, says that 362 cases constitutes the whole literature of surgically treated cases of typhoid ulcer.

In a personal letter from Dr. Walter Courtney, Brainard, Minn., he says in the past 15 years they have treated in the Northern Pacific Hospital 576 cases of typhoid fever; 534 patients recovered, giving a recovery percentage of 92.7%; 42 died, giving a mortality percentage of 7.3%. There were 8 perforations, 5 of which were subjected to operation; the other cases seemed hopeless. Of the 5 patients operated on, 1 recovered, with a mortality percentage of 80%, and a recovery percentage of 20%.

In a personal communication from Dr. Wm. M. Harsha, Chicago, he reports a case of abscess following symptoms of perforation in a typhoid case on the 21st day of the disease. Operation delayed. Abdomen opened 6 days later. Abscess drained; recovery.

The largest number of cases recorded were between the ages of 20 and 30. The largest percentage occurred in the third week of the disease. Perforations occurring in the ileum were 81.4%, and in the large intestine 12.9%.

When we consider how meagre the literature is upon the subject of perforation in typhoid fever, and contrast the small number of recorded cases with the literature on appendicitis, the observer is appalled. The explanation of this, by good authority, is that appendicitis occurs suddenly in one who is usually in good health; perforation in typhoid fever occurs during the course of, and many times late in the course of the disease, when the symptoms indicating perforation are masked by pre-existing conditions of abdominal distension, tympanitis, stupor, and the numbered sensibilities of the patient. The best guide to perforation is the sudden onset of pain with or without increase of pulse rate or symptoms of collapse and boarding of the abdomen; a careful watch of the leukocyte count at such times will aid very much in establishing a diagnosis.

The writer wishes to report one case: Male, aged 43. Seen first, July 16, 1903. Had been sick about 1 week, under the charge of another physician, whom he had discharged. Found him sitting up in bed; temperature 102°; slight abdominal tenderness; no rose spots found; some distention; moderate diarrhea. Made a diagnosis of typhoid fever, and advised him to send for his former physician, as he could care for him as well as any one. On July 18th was sent for again, saying that he had seen still another physician, and was not satisfied, and that he (the patient) did not think that he had typhoid fever, although the last physician had agreed with that diagnosis. As the patient was living in a very small shack with a wife and several children, the room in which he was lying containing two beds and a cooking stove, and practically the only living room, I advised him to go to the hospital, where he could have good nursing, as they felt they could not afford to have a nurse, even if there had been sufficient room to take care of the patient at home. The patient's statement was that he did not feel that it was necessary to go to a hospital, as he had had typhoid fever several years before, and he felt different at that time, and he felt sure that he would be all right in a few days.

He disregarded the writer's advice about remaining in bed, and at the time was reclining on one of the beds, fully dressed, and had been walking around considerably during the day. The patient reported having had several watery movements. He was left with the advice that he must go to the hospital or I would not see him again. July 20th I was called again, and found him in bed. He had not seen a physician since my last call. He had a temperature of 103°, and was not feeling so well. An effort was made to differentiate between a possible appendicitis and typhoid fever, with the result that no rigidity of the muscles in the lower right abdominal region was found, and a slight tenderness on pressure which was rather general over the right side; pulse 65, slow, full and not compressable; no rose spots. It was not thought necessary to make a leukocyte count or to try a Wiedal. He would not go to a hospital, but consented to go to a sister's house, whom he said was a nurse. Advised removal in the ambulance, to which he consented. July 21st called to see him at his sister's, and found him in bed, feeling very badly; had had a number of watery movements and a good deal of distress in the bowels, and said that he had driven to his sister's in a buggy at 6 P. M. the day before. Refused to attend him unless he went to the hospital, as there was a great deal of abdominal tenderness and quite a little distension. Patient finally consented, and he was removed to the hospital in an ambulance.

I will quote from the hospital records: Was admitted at 10:45 A. M., July 21st. Rectal temperature 102°, pulse 100, respiration 30. A great deal of distension of the abdomen, very little pain. A colon flushing was given, and a great deal of mucus expelled; thin watery movement. Bowels moved at 1:45, 2:35, 3:35, 4:45 and 6:05 P. M., all reported as being watery and containing mucus. At 7:40, temperature 100.8°. At 8:15, movement of bowels, semi-formed, yellow green mucus. At 9:50, vomited green curds. Patient had not had any nourishment but peptonized milk since admittance to the hospital. Some pain in the abdomen. At 10:15, vomited malted milk which had been given. At 9:30 P. M., greenish yellow mucous movement, less pain in the abdomen. At 10 P. M., vomited green fluid. At 1 A. M., July 22d, temperature 104.4°, pulse 70, respiration 72. Vomited 6 ounces of fluid. At this time the writer was telephoned to, and as there was no collapse, no blood in movements, patient's condition good, less distress and the pulse was good; did not see him, but ordered an ice bag on the abdomen, and directed that he be watched carefully, as it was either a hemorrhage or perforation. At 2:30 A. M., small, thin, brown movement, semi-formed, considerable gas and less distension. July 22d, 5:35 A. M., temperature 101.2°, pulse 70, respiration 28. At 6 A. M. record reads: Slept fairly well, and felt comfortable after 3:30 A. M. Seen by writer at 7:30. Considerable tympanitis and a feeling as if he wished to have a bowel movement. Pulse 70. Rumbling of gas in bowels. Perforation was suspected at this time, but owing to the lack of care previous to his admission to the hospital, he having been walking around each day until 14 hours before admission to the hospital, the condition of the pulse being good, it was thought best to watch him for

a few hours, and everything was got ready for an operation. Ordered an enema of normal salt solution, with a little turpentine, which caused considerable pain. Water expelled; vomited. At 9 A. M., temperature 101.3°; seen by me at 9:30. Diagnosed perforation, and advised immediate operation. Operation delayed waiting for consent of family. At 11 A. M., opened the abdomen at the right border of the rectus. Abdomen filled with feces, strong odor. Opening in cecum found at base of the appendix or within ½ inch of its base. A perforation was found about the size of a 5-cent piece. The appendix was so close that it was removed in order to make a good closure. No other perforations found, and no adhesions excepting a few around the head of the cecum. Eight or 10 large spots found on the large intestine, which looked like hemorrhagic spots, and felt like thickened typhoid ulcers. Abdomen thoroughly flushed with normal salt solution. Closed with drainage. Patient in collapse, but rational. Died at 4:50 P. M., same day, i. e., July 22d.

SPECIMEN FROM CASE REPORTED.

A limited autopsy a few hours after death. Firm closure of the line of suture. Several typhoid ulcers found; a number of ulcers with very thin base, which were about to perforate; a few small ulcers in the ileum. There were a few minute ulcers starting in the ileum; no perforations found; the dark spots found on the intestinal walls at the time of the operation proved to be intestinal ulcers. This photograph will show some of the ulcers fairly well; the sutures being removed from the perforation show the large punched-out appearance of the ulcer; at the margin the base of the appendix can be seen. This was turned in with the same line of suture. Kidneys normal. Spleen about two-thirds larger than normal.

This case demonstrates that during the course of typhoid the recumbent position must be insisted upon. Although perforation was suspected, the lack of suitable care and irrational disregard of personal safety on the part of the patient were probably responsible for the fatal issue. A note of warning should be sounded in the treatment of cases of typhoid fever, and each and every case when approaching the stage of the disease when hemorrhage or perforation usually occur, should be watched very closely for the onset of symptoms indicating an impending rupture. The advice of C. J. Wilson that during the course of all cases, rigidity of muscles at the right lower quadrant of the rectus muscle, particularly if it is accompanied by pain, should warn the attending physician. He also believes that hemorrhage may be a precursor of perforation. It would hardly be controverted with the existing knowledge of these cases that a leukocyte count at a time when hemorrhage or perforation was suspected, would aid very materially in making a diagnosis, and it would be far better to open the abdomen unnecessarily for a suspected perforation than to wait and operate for the resulting peritonitis, which follows so quickly.

Sudden pain accompanied by rigidity of the muscles in the right iliac region during the course of typhoid fever, accompanied with a leukocytosis and sudden increase of temperature, should be considered indications for surgical interference just as we would look upon these symptoms in a case of appendicitis. Operation should be advised at once. There can be no advantage in waiting for a general peritonitis to develop and then subject the patient to an operation with its increased risks.

THE ACCESSORY TREATMENT OF TYPHOID FEVER.*

By GEORGE B. ROWELL, M. D., San Bernardino

TREATMENT of special symptoms. Delirium. Besides the continued use of the general measures employed in typhoid, the most important of which is the antiseptic treatment combined with properly applied hydrotherapeutic means, the use of the ice cap, along with bromids, may assist to relieve the patient; but the controlling of the fever in a general way will usually suffice.

Diarrhea. If this symptom is troublesome or persistent it is usually relieved by using boiled milk as a diet exclusively for a day or two, and giving small doses of oil of turpentine along with some simple preparation of opium.

Constipation. This condition is best relieved by daily enemeta. Severe headache, sleeplessness and restlessness are best controlled by regulating the action of the bowels to at least 3 movements in each 24 hours, by using the ice cap and by sponging or cold bathing whenever the temperature reaches 102° or over. Occasionally the use of bromid and small doses of chloral may be required.

Epistaxis, if severe, may be treated by the use of epinephrin solution (1-1000) locally, or by plugging the nose if required.

Vomiting. Vomiting is rarely troublesome, and is usually caused by improper diet. It is best treated by reducing the diet to milk and lime water, and by having the patient swallow small pieces of ice frequently. Should there be an aversion to milk, liquid peptonoids or panopepton, iced, should be substituted. Dry champagne may be given simultaneously. Excessive irritability of the stomach calls for perfect rest of the organ for a period of 24 or 36 hours, the patient being supported meanwhile by rectal alimentation and subcutaneous medication.

Tympanities. This symptom is sometimes very distressing, and is often associated with marked diarrhea. Turpentine internally and turpentine stupes over the abdomen, along with turpentine enemata, generally suffices, particularly when the accumulation of gas occupies chiefly the large bowel, as is often the case; these failing, a long rectal tube should be passed. This symptom is often caused by the ingestion of milk, and a change of diet to meat juices and albumen water will afford relief.

Hemorrhages from the bowels are best treated by absolute rest, an ice bag to the right iliac region (suspended if possible), and ice freely given by the mouth, morphia hypodermatically, withdrawal of all food for some hours, then giving a diet of the blandest character. Epinephrin solution (1-1000) in half drachm doses by the mouth until two drachms are given within two hours unless sooner relieved. Ergotine, turpentine, and intestinal astringents may, of course, be used. For severe hemorrhages, saline infusion or saline enemata should be employed, and repeated several times during the day, if collapse is marked.

Peritonitis. When due to perforation, which it usually is, an early diagnosis is most important, and an operation offers the best chance for the patient if he be in condition to undergo it.

Treatment of complications. Meningitis. Symptoms of meningitis during the course of typhoid fever are generally caused by the systemic toxemia affecting the brain and its membranes and not by any active inflammation of the meninges themselves. These symptoms may persist for several days, but are usually relieved by the general treatment and an ice cap in about a week. During the summer of 1904 I had a case of this character in a young man of 23 who developed pronounced meningeal symptoms about the end of the third week of his fever. They continued for fully 10 days, but finally yielded to use of the ice cap and large doses of antiseptics, more particularly sodium sulpho-carbolate, and thymol.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

These symptoms came on after the temperature had subsided to 100° or 101°, and were not accompanied by any special elevation of temperature.

Endocarditis. Early in the present year (March, 1905) I was called in consultation to see a boy of 11 with typical typhoid who had developed rather suddenly, about the fourteenth day, a well-marked endocarditis, probably accompanied by some dilatation. The attending physician said he had shown a tendency to dyspnea for two days previous to the onset of the marked symptoms. He suffered from typical cardiac asthma, considerable cyanosis of lips and face, rapid short breathing, and had a very distinct mitral systolic murmur. There was decided tenderness over the heart region, but no other special signs or symptoms of pericarditis. The treatment consisted in a continuation of the general measures, which was the administration of two grains of an intestinal antiseptic, the usual diet and sponging. He was also given strychnia and digitalis in ordinary doses. Now, 7 weeks later, his recovery is complete with no remains, as far as can be made out, of the heart complication which so threatened his life at the time of its appearance.

This goes to show that the general infection was directly and entirely responsible for his endocarditis, and that the relief of the general condition was very soon followed by a cure of the complication mentioned.

Neuritis is an occasional complication occurring in about 1½%, the optic nerve being occasionally affected. This condition yields to general treatment, as a rule.

Phlebitis occurs more frequently than is generally supposed, its most common seat being the femoral veins, particularly the left one, and is best treated by elevating the leg, keeping it at perfect rest, and by the application of an ichthyol and belladonna ointment 3 or 4 times a day, together with hot applications.

Antiseptics. Antiseptics must be used as preventives against the spread of the infection when it is outside the body, and as curative agents for the patient when the infection is inside his body. The best antiseptics for use in urinals, etc., are, first, corrosive sublimate in 1-1000 solution, and second, fresh chloride of lime. The urine should be treated as well as the feces.

Internal antiseptics. First of all, calomel. It should be given in moderate doses of one-eighth to one-half grain from the very beginning of the disease, not as a purgative exactly, but with sufficient frequency to insure at least 3 bowel movements in every 24 hours. It acts not only as an antiseptic and laxative, but also as a cholagogue. This latter action is important because much depends on a free secretion of bile in the treatment of typhoid, and the function of the liver is too often neglected or forgotten. The bile is nature's antiseptic for the intestine and for the system generally in health, and is much more needed in typhoid, consequently let us watch the action of the liver. Thymol is certainly second on the list, and should be given pretty well throughout the course of the disease as a general intestinal antiseptic in doses of 1 to 5 grains every 4 hours. The sulpho-carbolates of sodium and zinc have proven very satisfactory in my experience, particularly the sodium salt in cases of children and asthenic patients, in liberal doses, well diluted.

Diet. Milk meets the requirements more closely than any other article of diet. It should be given diluted with pure water or carbonated water, preferably the latter, on account of its being thereby made more easily digestible. The amount should be regulated only by the patient's capacity for digestion; from 4 to 8 ounces is given diluted every 2 hours, unless the stools show undigested particles of casein, in which case the amount would have to be diminished for a short time or peptonized milk could be used in place of the ordinary product. It is well to give 5-grain doses of scale pepsin 4 or 5 times a day to assist the peptic power of the stomach, which is weakened by the disease, and needs help. Panopepton I consider a very valuable adjunct to the typhoid dietary. It can be given in one-half to one ounce doses in cracked ice every 2 to 4 hours, alternating with the milk, or where milk cannot be taken, the panopepton may be used entirely for a time. Egg-nog and milk punches may be given once or twice during each day if the patient can digest same without difficulty.

Of course we all understand that no solid food should be given until one week after the temperature has reached the normal point; then very soft articles of food should be given, and gradually increased to a full diet in the course of 10 or 12 days, unless the patient shows that he is disturbed thereby.

Water that is known to be pure should be given very freely the patient prevailed upon or educated to take a glass of water 3 or 4 times every hour. This is a very valuable aid to his excretory functions, especially to the kidneys. The skin, of course, is made to act more freely also. Water may be used in the rectum in quantities of 1 to 8 pints at a temperature of 70° or cooler, from once to 3 or 4 times a day where there is high temperature or in cases where there is constipation or where the patient cannot take the necessary amount of fluid by the mouth. Very favorable reports have been made where the routine treatment by rectal injections of cold water was followed daily while the patient had any temperature. Salt solution should be administered per rectum, under the skin or intravenously in suitable quantities in cases of collapse or extreme weakness.

Serum therapy. Personally I have had no experience with either the preparation of Wright or that of Chantemesse. A. E. Wright uses an anti-typhoid "vaccine." From an experience with anti-typhoid inoculations in many thousands of soldiers of the British army he draws the following conclusions: The incidence of typhoid fever was diminished by at least half in the inoculated. The case mortality was less than half that among the uninoculated. The death rate has often exceeded and seldom fallen below a four-fold reduction. The duration of the protection afforded by inoculation persists during the second and probably the third year thereafter. In order to avoid the constitutional reaction, he advises two consecutive inoculations instead of one severe one.

Chantemesse has been using an anti-toxin for over 3 years. He compares results obtained in his cases with those obtained in other Paris hospitals with a similar class of cases. The whole number of patients treated by his serum were 756, of which number he personally treated 545. The remaining 211 were treated by Josias and Brunon, and were exclusively children. The mortality in both series was the same, 4%. The average mortality at other Paris hospitals was 18%, and the lowest mortality in any of these institutions was 12.8%. The causes of death under serum treatment were essentially those which cause death under other methods of treatment. Max Einhorn finds that serum treatment does not materially shorten the course of typhoid fever, but that it brings about a definite improvement in the symptoms.

DISCUSSION.

Claire W. Murphy, Los Angeles.—The typical symptoms are severe sharp paroxysmal pain, increasing in severity, shock, frequently profound, vomiting; then comes reaction from shock, then symptoms of peritonitis, increase in temperature, hyperpyrexia, stronger pulse, later becoming more and more rapid and weaker; anxious face, distension of abdomen, hiccough, loss of liver dullness, rigidity of one or both recti, movable dullness in flanks from exudate; pulse weaker and weaker, respiration increased, guarded and shallow; finally the patient dies. Pain at first is usually located to the right of the center line in the hypogastrium; may be to the left; may be referred to the penis; then micturition is frequent.

When peritonitis has developed, the pain is generalized over the abdomen. The temperature may remain high, the pulse be good, and shock be slight or absent at the time of perforation, but pain is very rarely absent. The pulse will be somewhat higher, the respiration will be restricted, and there will most

likely be some rigidity of the rectus. Leukocytosis may or may not be present. Typical symptoms may be present without perforation.

The prognosis depends on the length of time the patient has had typhoid, his condition at the time of perforation, amount of shock, length of time after perforation before operation, facilities for operation, skill and rapidity of surgeon. Perforation may occur any time from eighth to tenth day. Most perforations, in severe cases, occur in the third or fourth week, when the patient is already more or less exhausted. The sooner the operation is performed the better. Twenty-five per cent will probably recover if operated on within the first 24 hours; as the hours go by, prognosis progressively worse. Unless moribund, all patients should be operated upon; a very few possibly recover without operation.

Early, if tender over right side, go through the right rectus near its outer margin. When peritonitis has developed, incision should be median. Examine intestines in order of frequency of place of perforation; first ileum, then cecum and appendix, and lastly the sigmoid. Do not eviscerate; be rapid; hunt for more than one perforation. If ulcer's base is thin beyond perforation, trim it. A double row of Lembert sutures (silk) in longitudinal axis of the gut, including the submucosa, will close the rent efficiently and quickly. If exudate and escape of feces is small in amount, mop out gently; if great, wash out with normal salt solution; drain with gauze; don't be in a hurry to remove the drain. Hemorrhage or rupture of a supporting mesenteric gland may stimulate a perforation; operation is imperative.

Appendicitis occurring with typhoid should be treated conservatively. Unless symptoms are very urgent, appendicitis due to typhoid should only be operated for when perforation occurs.

W. E. Bates, Davisville—While your committee of arrangements was kind enough to request of me a 5-minute paper to open the discussion on the treatment of typhoid, and endeavored to furnish me an abstract of the papers to be discussed, no abstracts have been forthcoming, and at the eleventh hour it has dawned upon me that I will be expected to read something anyhow. Under these circumstances, then, a very brief statement of the treatment of the present day as I see it may here be given.

First and foremost, I wish emphatically to state, and I think a vast majority of our best men will agree with me in the statement, that a case of typhoid is not curable in any degree. No remedy yet found can shorten the course of the disease except it act through preventing complications. When once the disease is established, we can but guide the patient safely to health again, but in no wise shorten the disease itself. With this fact well in mind, the most successful man will be the one who ever remembers that he is treating an exhausting disease, one that will sap the vitality of the patient for weeks, or may be months, and if complications or an intercurrent malady ensues, will carry off the patient if every grain of strength has not been preserved for the struggle. Bearing these thoughts well in mind, then, every patient in whom typhoid is suspected should be put to bed immediately. No muscular exertion whatever should be allowed. The recumbent position be insisted upon for feeding, micturition and defecation.

The patient should be isolated, and the excreta thoroughly disinfected. The drinking water and milk, together with their source, should be carefully inspected. The sick room should be well ventilated and absolutely clean. The patient should be sponged regularly, and all soiled clothing at once removed. The nurse should cleanse her hands with a mild disinfecting solution whenever soiled. The disinfection of the urine and feces should be very thoroughly done. The soiled clothing should be disinfected by being placed in a weak solution of corrosive sublimate and permanganate of potash, and afterwards boiling them in water for a half hour.

The activity of the skin and bowels should receive first attention, and if the latter need unloading, administer small doses of calomel, and if necessary follow with a mild saline purge. Large draughts of good, pure water are to be given to flush the kidneys, Londonderry lithia or Poland water being preferred. The diet should be of a liquid nature, milk being the nourishment par excellence, Brieger having shown that typhoid bacilli do not readily reproduce themselves and their poisons in peptone and well-digested milk, thus offering a scientific reason for what we have found in actual practice to be the case. From 1 to 1½ quarts of milk per day should be given. Alcohol should not be used as a routine measure, but with a clear idea of what it does and how it does it. Briefly we look upon alcohol as a remedy to maintain the equilibrium of the circulation. In this way it aids digestion. In sudden and temporary loss of heart power from hemorrhage, given hot and concentrated, it is one of the remedies to be employed. In the high temperature of the advanced cases, with marked asthenia and weakened heart sounds, alcohol is also indicated. It is contra-indicated in asthenic cases with high temperature, full, tense and bounding pulse.

In the early stages sleeplessness is relieved by the administration of trional or sufonal. In the latter part of the disease, opium in the form of Dover's powder is altogether the best.

If vomiting threatens, lime-water is added to the milk or the milk is peptonized, or beef tea is temporarily employed. For the dry and sordes-covered tongue, a mouth wash of equal parts of glycerine and water, to which a little powdered borax has been added, may be used, it being important to keep the mouth cleansed, thus preventing cracking of the lips, tongue and buccal membrane, as should such occur there might arise pulmonary infection, facial erysipelas, etc.

If the bowels do not move for 24 hours, 1-6 grain of calomel may be given every 15 minutes until 1 grain is taken, and if in 12 hours no bowel movement results, an enema of a half glass of Hunyadi water may be given. If more than 3 or 4 passages a day occur, small doses of aromatic sulphuric acid may be given every hour until the bowels are checked. Should the passages be excessively fetid and tympanites marked, carbonate of guiacol may be given as an intestinal antiseptic, or if meteorism be troublesome, oil terebinthinæ in syrup acaciæ is efficacious. Where tympanites is excessive it will probably be removed by an enema of turpentine, olive oil and water. Excessive temperature should be controlled by applications of cold.

The complications of typhoid of the most serious import are hemorrhage, pneumonia, pleurisy, and perforation. When symptoms of hemorrhage appear, the patient should be kept quiet; the foot of the bed raised to prevent fainting, and blood, which is passed through the bowels, removed with as little disturbance as possible. All stimulants withdrawn; opium administered, and an ice bag placed over right iliac fossa. Hypodermoclysis may be performed if indicated. Foods should be given in small quantities. Pneumonia and pleurisy should be treated along the usual lines, ever remembering that the pneumonia is an asthenic adynamic case.

When symptoms of a perforation occur, a skillful surgeon should at once be called in and the perforation or perforations found, closed, and the peritoneal cavity well cleansed with sterile normal salt solution. During convalescence, patients should not be allowed to get out of bed, but as soon as deemed wise carried on a stretcher out into the fresh air and sunlight. A patient will ask for solid food long before he should have it. As a rule, if the temperature has remained normal for 9 days, the diet may be extended to

semi-solid, and then gradually brought back to ordinary diet.

Dr. Geo. H. Evans, San Francisco—We have here on the Pacific Coast a mild type of typhoid fever, much milder than the type which we see in Eastern hospitals. I question if the mortality reported by Dr. Bates is any lower than that obtained in private practice. In my hospital service, however, I see much more severe cases, where the mortality does not differ materially from that obtained in Eastern hospitals where hydrotherapy is carried out, which is the treatment I follow. The more closely we adhere to the Brand treatment the lower our mortality will be.

Dr. W. J. G. Dawson, Eldredge—I have been watching cases of typhoid fever off and on for about 37 years, and I have learned nothing new to-day from the papers presented, except from a surgical standpoint. It is considered now, as formerly, that the disease is self-limited, having to run its course, and be skillfully guided, if possible, to a favorable termination; that the best treatment consists of good nursing, but little medicine and proper diet, especially milk. Years ago Prince Albert died of typhoid fever; he was treated by the old stimulating plan. Afterwards his son, the then Prince of Wales, now King Edward, contracted the disease. He was placed on a milk diet, and recovered. This incident is said to have opened the eyes of the medical world to the fact that milk is a suitable diet for typhoid fever patients. We hear very little now of the Woodbridge treatment or other so-called cures, and I believe that there is more virtue in good nursing and proper diet than in anything else.

Dr. Cooper, in his paper, referred to intuition at the bedside as an aid in diagnosis. This to me seemed the keynote of his paper. Intuition at the bedside is like the charity spoken of in the Scriptures, all else being of minor importance. I also would add under the head of treatment, in cases of shock produced by hemorrhage or perforation, that the sheet anchor in such conditions when drugs are permissible is the pure opium, not morphia or any of the other alkaloids.

Dr. Ray L. Wilbur, Stanford—I believe thoroughly in operative procedures for the treatment of perforation in typhoid, but at the same time feel sure that under many conditions medical treatment offers as much hope as surgical for the cure of the patient. When the symptoms and signs are typical, and the operation can be done promptly, it is the thing to do. Pain is often not a proper guide in detecting perforation, and before one submits a typhoid patient struggling for life to the excitement and shock of operation he should be sure of his ground. In the patients I have seen, about 25% have had severe pain in the abdomen at some time during their illness, from various causes, known and unknown, and most often present on the right side. Vomiting occurs from various causes; tympanitis is common, and shock is often circulatory. When one considers the unusual friability of the bowel wall, as a result of severe typhoid infection, the thinness of the floor of the typhoid ulcers, and the amount of manipulation of the bowel frequently carried out by surgeons in the search for perforations, it seems not improbable that perforations are sometimes made at the time of operation.

In regard to one point in Dr. Cooper's paper, it has been my experience that marked sweating is of fairly common occurrence at the height of severe typhoid fever, particularly where pneumonia or other complications are present.

One case of joint involvement in typhoid that came under my observation was in a young man, who, after a fierce struggle for life against a double pneumonia, developed, as his recovery began, a marked swelling about the right elbow joint. Through free incisions large quantities of pus were drained off, and after 18 months of constant attention a useful elbow has resulted.

Dr. Chas. D. Lockwood, Los Angeles—It is estimated that between 20,000 and 30,000 deaths yearly, in the United States alone, are due to perforation, and yet but 372 cases have thus far been treated surgically. Neglect of this field may be traced to several sources. 1. Failure in diagnosis. Improvement must be looked for along this line. How many of our sins of omission in the practice of medicine may be laid at the door of mistaken or neglected diagnosis! 2. Many general practitioners fail to differentiate between hemorrhage and perforation. To be sure, they may be coincident, but it is generally possible to distinguish the one from the other, if frequent examinations are made from the inception of the disease. The diagnostic signs in the order of importance are the following:

1. Pain. This symptom is present in the large majority of cases, and is usually the first to appear. This pain may be referred to any part of the abdomen, to the groin, testicle or thigh. The pain is usually paroxysmal in character, and may even cause a previously stuporous patient to cry out. The pain of perforation must be carefully differentiated from that due to associated conditions, such as pleurisy, pneumonia or gallbladder infection.

2. Abdominal rigidity. This sign is usually present, and when observed in a typhoid patient previously free from abdominal tension it suggests beginning peritonitis, subsequent to or preceding perforation.

3. Moveable dullness in the flanks, due to extravasated intestinal fluid and serous exudate from peritoneal irritation.

4. Pulse. There is a sharp rise in the pulse rate, wth diminished tension in the majority of cases.

5. Temperature. This is very unreliable; it may rise, fall or remain unchanged.

6. Leukocytosis. There is generally an increased leukocyte count, although this may only be relative, as typhoid fever commonly shows a leukopenia.

Along with the above symptoms is the change in the facial expression. The face assumes a pinched, anxious look, and to the close observer the change is marked. However, no one symptom can be relied upon, but the symptom complex, where frequent examinations have been made as a basis of comparison, will usually lead to a correct diagnosis at a time when surgical treatment will be of some avail.

I recently operated upon a girl 17 years of age who had a perforation in the second week of a very severe typhoid. The perforation was in the ileum about 18 inches from the ileocecal valve. The perforation was preceded by a very severe hemorrhage. The patient stood the operation well, and all of her symptoms improved until the seventh day, when she had several more hemorrhages, and finally a second perforation. She was now so very weak that further operation seemed unjustifiable, and 10 days after her first perforation, death occurred. Although this patient finally died, it is no argument against operation, for the prompt surgical treatment of her first perforation saved her life temporarily, and she probably would have recovered from this lesion had not the severity of her infection overwhelmed her.

Dr. Emmet Rixford, San Francisco—It may be pertinent for me to state in this connection that I have operated in all in five cases of perforation of typhoid ulcers. All of the operations were late operations, none within the first 24 hours, and in no case had localization of the peritoneal inflammation occurred. All of the patients died. If these cases mean anything, it is that if it is hoped to save patients who have had perforation of typhoid ulcers, operation must be performed early or else be restricted to those few cases in which localization takes place.

Do not forget to send your change of address to the JOURNAL office.

THE PREVENTION OF DISEASE—ITS PRESENT NEED.*

By F. M. BRUNER, M. D., Santa Ana.

I HAVE no apology to offer for the presentation of a paper upon this subject, when a glance at the annual reports of the various state boards of health show such a large percentage of deaths from diseases generally acknowledged as preventable. Of all the states and territories of the United States to which I sent the following inquiry, "Have you any laws upon the statute books of your state for the prevention of disease?" I received 36 replies, 33 yes, and 3 no—Idaho, Nevada and Delaware. The large majority of the states have excellent laws for the control of the spread of contagious diseases, also for the prevention of disease; none, however, have any law making sanitary science and hygiene a part of the educational system of the state, or provision for the institution of a gymnasium as a part of their educational system. The need of some law directing special attention to the prevention of disease is not a new thought; indeed, the need of to-day is not something new, but to have our attention called to the things we have forgotten.

Moses in the Book of Leviticus, has left the world a heritage upon the prevention of disease that has never been equaled by any civilized nation of the world up to the present time, and I feel safe in saying will never be surpassed in the future. The mandate from Jehovah to Moses was, "Speak unto Aaron, the high priest, and his sons, that they may teach the people concerning these my laws"; then follows most complete and specific instruction as to the detailed management of the diseases of those times, not only as regards the individual, but also the care of clothing, houses and persons with whom the afflicted one may come in contact. The point to which I wish to call attention is, the teaching of the people, the coming into personal contact of the teacher with the people. Under the beneficent influence of such teachings, Israel remained free from all epidemics of disease and grew to be the mightiest nation of those times; thus do we get a hint from the past as to the methods best to pursue in the present and for the future.

Disease is prevented in two ways, by legislation and by education. One compels man to keep well, the other creates in man a desire to keep well. One is operative during periods of danger only, the other is operative at all times. One is operative through a sense of self-preservation, the other is operative through a sense of the moral obligation that "I am my brother's keeper."

Since society is as yet in the kindergarten stage of her moral development, both methods referred to are necessary to prevent the spread of disease. Since the world is not ready for the practical application of the universal brotherhood idea, and the "big stick" is the acknowledged deterrent influence in our social life, laws are necessary and needed in every state in the union.

I desire to urge the necessity for going further and paying more attention to education; correct the errors that exist, before harm has been done. If the religious educators can inculcate their religious beliefs into the mind of the child, so that by the time the age of 14 has been reached, their doctrines have become so firmly rooted in the mind that the life will be influenced and controlled by them, then we, as educators along other lines, just as essential to the well being of humanity here, if not hereafter, should accept the hint and profit by the experience of these teachers.

The healthy body is the only fit receptacle for the mind. Indeed, the healthy body is absolutely essential for the development of a healthy mind; educate and keep eternally at it. In our medical colleges, universities and public schools, by such measures raise the standard of living to a higher level, in the minds of the people; create a desire for a wholesome life, both moral and physical, and then there will be no difficulty in having the laws observed. Bring all the influence we can, legitimately, upon legislation, and have enacted laws broad enough and deep enough to meet the needs of to-day and provide for the future.

The educational system of California in the public school is under the control of the State University. That institution's policy with regard to the public school seems to be, cram, cram the mind, and then cram some more, to the almost total neglect of development of the body. The object of the public school is not, I maintain, to produce solely a mentally developed citizen; it is rather to develop the fully rounded man and woman by fitting them both mentally and physically for the duties of life which lie beyond the portals of the high school. The tendency of the time is toward the intellectual at the expense of the physical development, the cramming and forcing of the students of our common and high schools, is one of the most potent factors in the production of the mental wrecks among our young people.

The nations of the world which have strewn the pathway of the march of civilization and intellectual development have failed not because their task was accomplished in the plan of the Creator, but because of the violation of those laws of health which are the only passport to a nation for perpetual existence. Violation of law means death; it is the law universal which all must take into account sooner or later.

The machinist who builds an engine with a view to speed alone will probably attain his object, but at what a cost? Time, money, life, all sacrificed. Why? Because the engine had no strength, no durability; so with the man who develops his mind and neglects his body. If it is the object of our educational system to produce mentally brilliant students, it will attain its object, but at the expense of strength and endurance.

In the past the nations which were the intellectual and educational centers of the world, by neglecting the physical development of the body, became effeminent and weak, and were supplanted by new blood from the hardy, rugged, barbarians of the north.

To-day the trades and professions are crowded with physically incompetent men and women, made so by the unsanitary environment of their homes; the remedy is a better understanding of scientific sanitation, the building of tenement houses in our large cities upon different plans than those now in vogue, limit population of our cities within a given area, allow only the building of detached houses; for tenements, multiplication of public parks; no resident of a city, no matter how poor, should be beyond the reach of a park; no house in which there is a room into which the sun does not shine should be allowed to be built.

The hope for the future is with the young generation; we can teach them these old truths and instil into their minds the necessity for a better observance of the laws of health. Establish the gymnasium in the public schools, colleges and universities, not the adjunct to the football team that exists to-day in the most of our schools, but an institution fitted to train and develop the body, keeping ever in view the great object for which the body was created. Given this strong physical foundation, with the finished and polished superstructure, the intellect, the public school will have accomplished its purpose.

Place at the head of the gymnasium men competent to direct its work, with a medical examining board to conduct a physical examination of each child who enters the lower grades or kindergarten. With the gymnasium placed under the control of efficient men, having due recognition as a factor in the education of the young, having for its object the development of a sound, well-balanced body, fitted by years of patient toil and study to become the receptacle of a mind trained to the highest degree; not the trained athlete

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

of to-day, having alone in view the winning of honors in the annual field day contest; such development is as ill advised and disastrous as the over mental development referred to in a foregoing paragraph.

Every child entering school should receive a thorough physical examination, before a board of examining physicians; any departure from the normal should receive the careful attention of the examining board. Each child should have a systematic course of physical training according to its individual needs, extending from the time it enters school to the day of graduation. No child should be allowed to cultivate the mind and neglect the body; a child educated according to this plan, from the kindergarten age to the completion of the high school, will be fitted to follow any avenue of usefulness that may present itself.

I admit that it will take longer to complete the course of study as it exists in our public schools to-day, but I will guarantee this, that there will be fewer scholars drop out before the completion of the high school course than do now, and as a consequence the ratio of general knowledge would be higher, and the citizenship of the country placed upon a higher level.

TUBULAR DIARRHEA OR MEMBRANOUS COLIC.*

By WM. H. FLINT, M. D., Santa Barbara.

HAVING recently secured a characteristic specimen from a patient suffering with this affection, the writer takes pleasure in presenting it to you, and in invitiug your attention to a brief consideration of this disease of the colon, which, in some cases, also involves the small intestine, and which has been designated by various authors as mucous, fibrinous or membranous colitis. Dr. Costa, in his article in the *American Journal of the Medical Sciences* for October, 1891, called it membranous enteritis, and Woodward, in his "History of the War of the Rebellion," gave an exhaustive account of the disease, preferring the designation tubular diarrhea, originated by John Mason Lord, because it does uot imply any theory regarding the pathology.

It would seem judicious that this non-committal term, or some equivalent, be firmly established in uosology, since the name colitis is an evident misnomer. This is true because the disease, when uncomplicated, is uot attended by the symptoms or signs of inflammation. Nothnagel suggested the name mucous or membranous colic, which seems to be a pertectly appropriate designation. Rothmau, who is quoted by Adler, in "Wood's Handbook of the Medical Sciences" (edition of 1901, p. 199), had the opportunity of making autopsies, in a number of cases of the affection, in which complicating diseases had caused the death of the patients.

In these cases he found no lesions of the intestinal mucosa, nor have other observers noted, so far as I know, the presence of blood or of pus, either in the mucous discharges, or upon the surface of the intestinal mucosa, after the discharge of the mucous fibres, shreds or tubules characteristic of this disease. Osler states, iu his article on this subject, in his "Practice of Medicine," that he has twice seeu, in autopsies, mucous masses adherent to the mucosa of the colon, but capable of separation without lesion of the mucous membrane.

The etiology of this complaint is not thoroughly understood. A predisposing factor, of notable importance, seems, however, to be an exhausted and irritable nervous system. The victims of the disease, in the writer's experience, are almost always neurasthenic women, weakly children or men with notably neurotic antecedents, and generally of feeble physique.

There seems to be a reciprocal relation between the disease and neurasthenia, the one intensifying the other. Most of the authorities which the writer has been able to consult state that a very large majority of the patients affected by this disease are women, and these observers maintain that it should be classed amoug the neuroses, with which conclusion the writer is in perfect accord. In his opinion the excessive production of mucus might, perhaps, be determined by the occurrence of angio-neurotic edema of the intestinal mucosa. In angio-ueurotic edema of the superficial tissues, we see a sudden, unaccouutable swelling of the parts affected, occurring at irregular intervals and without known cause, while, in certain neurotic individuals, localized perspirations are not uncommon. May not, then, the exaggerated function of the intestiual mucous follicles be excited by some similar temporary and periodical vaso-motor irregularity, analogous to that of superficial angio-neurotic edema or to that which, in hysterical patients, causes the secretion of abnormally abundant and limpid urine?

Little is definitely known about the exciting causes of membrauous colic, although patients often attribute the origin of their trouble to dietetic indiscretions. It would seem reasonable to suppose that rough, harsh and irritating foods, such as seeds of small fruits, or the hulls of vegetables, such as corn and beaus, might provoke such an irritation of the intestinal mucous membrane as to precipitate an attack. The writer has chanced to see a number of cases developed during or soon after an attack of epidemic influenza. The writer's patieuts have almost without exception, suffered from constipation for some time before the initial attacks, which fact causes him to infer the caustive influence of hardened fecal masses in the colon.

Symptoms. The pathognomonic clinical feature of this disease is the intermittent passage of tenacious mucous flakes, shreds, casts, balls, clumps, rolls, ropes or tubes, varying in length from a fraction of an inch to a foot or more, preceded and accompanied by griping abdominal pains, which cease for a time after the expulsion of the mucous masses.

Nausea often exists during the attack, with some tenderness over the colon. The abdomen is usually not tympanitic. The discharges are often composed entirely of mucus. In other cases, fecal matter, generally in small quantity, is miugled with the mucus. The pain is ordinarily colic-like in character, but is sometimes described by patients as cutting, buruing or lancinating. The pain originates in the course of the colon, most frequently in the caput coli, but it often radiates into the epigastrium, the umbilical region, or down the thighs. The painful discharges are not accompanied by an abnormal rise of temperature. The duration of the interval between the attacks varies from a few hours to a number of mouths, during which time the patient may, in uncomplicated cases, enjoy very good health or suffer only from neurasthenic symptoms. The disease may persist for years, and the individual attacks may last intermittently for several days or weeks. The patient's general condition is, usually, well maintained, unless emaciation and prostration follow an unreasonable reduction of the diet.

The attacks of pain are not invariably accompanied by the expulsion of the characteristic mucous masses. If the disorder is associated with inflammatory or organic intestinal diseases, such as colitis, enteritis or ulceration, the symptoms of these complicating maladies persist during the intervals between the painful paroxysms. The discharges are found, upon microscopical examination, to consist of mucus unmixed with fibrinous material, and holding a few epithelial cells or leukocytes entangled in the meshes of the mucous masses. No blood or pus occurs in simple cases, but both are found in those which complicate entero-colitis or intestinal ulceration.

I now take pleasure in presenting to the society a characteristic specimen, recently recovered from one of the writer's patients who had his initial attack of mucous colic during his convalescence from epidemic

*Read before the Santa Barbara County Society, April, 1905.

influenza. In this case, the pain originated in the region of the sigmoid flexure and radiated thence into the epigastrium.

In all the writer's uncomplicated cases the patients have recovered, but a number of them have been protracted, and both patients and physician have been obliged to call up their reserve forces of hope and of endurance.

The assurance may, in general, be confidently given to the patient that he will recover when he has fully regained his nervous energy. The case, of course, is very different when nervous colitis complicates organic diseases of an ulcerative or of a malignant nature.

Treatment. During the attacks of uncomplicated tubular diarrhea, the patient should preserve a recumbent posture, and should subsist upon a liquid diet, the chief ingredients of which may be milk diluted with Vichy water, broths made of beef, mutton, chicken, oysters or clams, with the white of an egg and expressed beef juice. The pain may be relieved by hot fomentations applied to the abdomen, or by phenacetin in 6-grain doses repeated p. r. n. Should these means fail, recourse may be cautiously had to opiates, but these must be used most guardedly.

The bowels should be opened daily by non-irritating laxatives, such as phosphate of soda or magnesia sulphate, and the patient's mental equilibrium is to be maintained by the repeated assurance that eventual recovery is certain. During the interval between the attacks the treatment should aim at the restoration and maintenance of the patient's physical strength and nervous energy by the employment of suitable dietetic, hygienic and medicinal means.

The diet should be selected with a view to furnishing abundant and easily digested aliments, which ought to be soft and unirritating, and which should tend to relieve constipation. The diet should not be unnecessarily restricted as to quantity.

Baths, massage of all parts of the body except the abdomen, and abundant exercise out of doors are to be recommended. Drugs are to be employed sparingly. Mild cathartics, such as the phosphate of sodium, calomel and cascara, or castor oil, are to be recommended if dietetic treatment fails to relieve the habitual constipation. Nervines are generally in order, and the writer gives the preference to nux vomica preparations.

Atropine sulphate, in doses of 1-200 grain, thrice daily has been advocated by some authorities, as well as enteric pills of silver nitrate, 1-6 grain each, given thrice daily one hour before meals. Beta-naphtol-bismuth, in 15-grain doses thrice daily, with hot water, one hour before meals, has given excellent results in some of the writer's cases. Injections and suppositories have seemed to do harm rather than good in the writer's experience.

PRACTICAL APPLICATION OF FUNCTIONAL DIAGNOSIS IN UNILATERAL KIDNEY-LESIONS.*

By Drs. M. KROTOSZYNER and W. P. WILLARD, San Francisco

SINCE our publication upon the newer methods of diagnosing unilateral kidney-lesions appeared we have had occasion to apply these methods on a comparatively large number of suspected renal affections. We are, therefore, able at present, on the basis of a rather extensive experience, to draw more accurate and reliable conclusions as to the practical value of these methods for the determination of kidney-function.

As to the technic of ureteral catheterization, we have stated that with patience, perseverance and the necessary technical skill almost every bladder could be cleared up to such an extent as to permit inspection and catheterization of the ureters. While this is true for most cases, we would have to modify that statement in this way, that, in cases of severe pyuria, where quick action is required, a successful cystoscopy and ureteral catheterization are sometimes impossible. In these cases one appreciates the value of the newer methods, as the older ones are often not liable to clear up the picture of dark renal lesions.

Except in one case that one of us recently reported to the San Francisco County Medical Society, we always were able to perform ureteral catheterization. In some cases, of course, as in case 7, it took many sittings and the patience of the physician, as well as that of the patient was taxed to its extreme. Wherever the ureter is imbedded in ulcerations or infiltrated tissue it takes many sittings before the field of the ureteral region can be searched to such a degree as to permit the finding and catheterization of a ureteral opening.

In these cases, where the sphincter of the bladder is distorted, where many ulcerations and diverticles are visible at the base of the bladder, only cystoscopy, and if possible ureteral catheterization will give reliable data as to the existence of an unilateral renal affection. This statement is made particularly with reference to any of the segregators in use for obtaining renal secretion separately. It is a very unreliable method in obscure kidney-lesions, since in these cases the bladder may be so distorted by chronic suppuration that the intravesical beak of the segregator may divide the vesical base in two chambers, one of which might contain both ureteral openings.

We have in some cases confined ourselves according to the teachings of the more conservative school of Nitze to catheterize one ureter, namely, that of the supposedly diseased side. The fact, though, must not be overlooked that results obtained by these means are not without a grave source of error. For it is sure, as many contend, and we also have seen, that urine will dribble along the side of the ureter-catheter into the bladder, thus mixing the secretion of the other kidney, obtained through the bladder catheter, with pathological elements belonging to the diseased side. Besides, one must not forget that the urine obtained from the bladder, which represents the secretion of one kidney, to be subjected to several minute and delicate tests, is mixed with the secretion of the bladder-wall, which, as a rule, is inflamed and diseased.

The rule, therefore, ought to be to catheterize both ureters in all cases where no contra-indication exists. The only pathological condition which possibly represents a contra-indication is tuberculosis. We, and many others, for that matter, have never seen a mishap after double ureteral catheterization, provided, of course, technic and asepsis are faultless. On the other hand, bilateral catheterization and subjecting both specimens to the regular tests gives such uniformly reliable results, that only one familiar with the method and its superiority over the older ones can appreciate its value.

Both samples of urine were generally examined cryoscopically. Cryoscopy of urine was found, as previously stated, a valuable method for comparison. For obvious reasons it is impossible to draw any conclusions from cryoscopical findings of mixed urine, this test being just as valueless as a urea-test, without knowing the exact amount of ingesta. The real, and to our mind only practical value of cryoscopy lies in its comparative results. Values of —1 to 2 on one, and —0.2 to 0.5 on the other side, show at a glance where the renal filter may be at fault, or where kidney-function is defective.

Blood cryoscopy has not proved of considerable value in our hands, and we read with satisfaction reports from other workers in the field coinciding with our experience. We are at present engaged in experimental work upon this method of examination that, according to Kummell, is one of the most valuable tests for kidney capacity. If this author finds a blood-point above —0.59, he will refuse an operation on one kidney for fear that the other will not sufficiently

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

functionate after the operation. Repeatedly, though even in severe uremia, so-called normal blood-points (—0.56 to —0.59) were found, while kidney-function proved to be very satisfactory in cases of bad or low blood-points (above —0.60).

We found, notwithstanding the experience and theoretical objections of other authors (Israel, Rovsing and others), the results obtained from comparative values of sugar-excretion after phloridzin-injection most valuable. As pointed out before, we lay stress upon the drug being thoroughly dissolved before being injected. Again and again we could convince ourselves that absence of sugar-excretion after phloridzin-injection was either due to low kidney-function or to the fact that the phloridzin had not been properly dissolved. Wherever phloridzin was properly injected and in sufficiently large dose (15 to 25 drops of a ½% watery solution) sugar appeared about 30 minutes later, and sugar excretion was at its acme about one hour later. We generally find on the functionally bad side no or so much less sugar quantitatively that we have become accustomed to look upon the phloridzin test as a valuable adjunct in the diagnosis of unilateral kidney-lesions.

The urea-test is also of considerable value for comparative examination. If 10 times more urea is excreted on one side than on the other, we certainly are justified, considering also corroborative evidence gained by other tests, in utilizing this result for diagnostic purposes. Most important, especially for determining the anatomical value of either kidney, is the comparative microscopic examination of both urine samples. Reliable results can only be had if both urines are obtained directly through ureteral catheterization. By this means we are enabled to diagnose even a slight pyelitis, while the character of graver unilateral kidney-lesions is often recognized by the microscope. Unless large amounts of albumen appear in one or in either urine sample, we must not lay too much stress upon it. A small ureteral abrasion incidental to catheterization will cause a slight admixture of blood to the urine, which is sufficient to indicate a trace of albumen.

We beg to submit to you the histories of a few of the most interesting cases as illustrating the statements and deductions made above:

C. T. R. First saw patient November, 1901. Had been treated for bladder trouble for 2 or 3 years. Examination revealed a prostate of normal size and a distended bladder containing 30 ounces of a foul-smelling alkaline urine which microscopically showed nothing but pus. Cystoscopically, chronic cystitis with beginning trabecular bladder. On general examination all the symptoms of tabes dorsalis were found. Admitted syphilitic infection 3 years previously, for which he had been treated a short time with internal medication. Commenced treatment with mercurial inunctions and potassium iodid internally. The latter had to be stopped and iodized sesame oil (20%) 2 cc. injections every second day substituted. Bladder regularly evacuated by catheterizing and washed with silver nitrate solutions. Condition improved so that the patient was able to evacuate the bladder with the exception of about 4 ounces withdrawn at the end of the day. General condition improved, tabetic symptoms did not progress.

April, 1904—Confined to bed with acute enteritis. 15-20 watery evacuations a day; became subacute and continued for 4 weeks. Rest, rectal irrigations and internal medication. During this time bladder symptoms became pronounced, pollakiuria, pain over bladder extending toward the left kidney. In the region of the left kidney a fluctuating mass could be felt. During June, 1904, several unsuccessful attemnts were made to catheterize the ureters, owing to the ulcerated condition of the bladder mucosa and the amount of pus entering from the left ureter. As the bladder cleared un from the washings the left ureter was catheterized easily, and the foul-smelling fluid obtained consisted of pus and a small amount of urine. Several times during the last 2 weeks (July 18th) the catheter in the left uterer has been left in place 8 or 10 hours at a time, and during this time there has been no rise in temperature or sweats as there had been previously.

June 30th—Left ureter catheterized. Phloridzin injected but no sugar except a trace in first half hour, from right kidney. Cryoscopy, right, —0.99; left, —0.46. Urea, right, .0056; left, .0025. Microsconically, red cells, few pus cells. Numerous pus cells, round epith.

July 12th—Cryoscopy, right, —1.62; left, —0.68. Urea, right, .0075; left, .002.

July 15th—Cryoscopy, right, —1.4; left, —0.45. Urea, right, .017; left, .003.

July 17th— —20 m. ½% phloridzin solution injected. First half hour right, 2.5% sugar, left 0; second half hour, right 0 sugar, left 0.7%; third half hour, right 0 sugar, left 0.

July 22d—Left ureter catheterized. Large amount of pus with some urine. 20 m. ½% phloridzin injected. Tests for sugar made every 5 minutes. Sugar appeared in urine from right kidney 25 minutes after injection, and persisted for 30 minutes. No sugar in urine from left kidney. Cryoscopy, right, —1.58; left, —0.4. Urea, right, 0.018; left, 0.0015.

July 25th—Left kidney removed. Anesthesia, spinal injection tropacocaine 0.06, with small amount of chloroform.

July 30th—Cryoscopy, —1.23.

August 6th—43 ounces urine. Urea, 18.629, or 0.016 pro 1 cc. alkaline. Pus cells, round and flat epithelia. Cryoscopy —1.0.

August 11th—Cryoscopy —0.85. Pus diminishing.

October 1st—Cryoscopy, —1.65.

March 15, 1905.—Microscope. Few pus cells, and flat epithelial cells. Patient entirely recovered and resumed business.

Case 2.—P. L., 48 years, born in England, merchant. Six years ago was treated for syphilitic psoriasis. No recurrence. Six months ago was treated in London by H. Fenwick for phosphaturia, nervous depression and insomnia. Urine, sp. gr. normal, no albumen, no sugar, acid, sometimes neutral, large amount of pus and organisms, b. coli most numerous; vesical calculi suspected. (History of lithiasis in family.) Diagnosis made of chronic cystitis, nervous symptoms due to autointoxication; treated with 1-4000 to 1-2000 silver nitrate irrigations, hexamethylene-tetramin internally; recovered after several weeks' treatment and remained in good health until April 27, 1904, 3 weeks ago.

Patient came to the office complaining of dull pain in the region of the right kidney, and was passing blood-tinged urine. Went home to bed and 2 hours later had a severe attack of renal colic, necessitating 1 grain of morphine to control. The following day had another attack more severe, for which 1½ grains morphine were given before the pain was controlled. This day several small calculi, varving in size from a pinhead to a bird shot, were passed.

Urine, acid, 1.015, good amount of albumen, good amount sediment containing numerous red cells, leukocytes, pus cells, flat epithelia, calcium, oxalate crystals. For 2 or 3 days had slight pains radiating from region of the right kidney to the bladder. Pain on pressure over the right kidney. Temperature 98.8° to 100°. Amount of urine, 40 to 50 ounces.

Morning of May 6th, 9 days after first sickness, had a severe chill, followed by temperature 102.5°, malaise, no pain in right side, anuria for 6 hours. Consultation with Dr. Levison, diagnosed renal calculi, expectant treatment advised; hexamethylene-tetramin, alkaline mineral waters, hot packs. During next 4 or 5 days had chills at irregular intervals, became more severe and temperature ranged as high as 104° to 105°, and between the chills 101° to 102°. Patient had appearance of general sepsis. Pulse increased in rapidity, decreased in volume. Respiration 20 to 30.

May 11th—Right ureter catheterized. Cryoscopy, right, —0.57; left, —1.02. Urea, right, .001; left, .015. Microsconic examination, right, large amount of pus, few red cells; left, few leukocytes, few red cells, flat and caudate epithelia granular casts.

May 11th—Consultation with Dr. Huntington; 12th, Drs. Huntington and Kerr; decided to operate same day, as natient's condition was becoming worse. Operation 12:30 P. M.. Anesthesia, spinal, tropacocaine 0.05, chloroform about 2 drachms. Time of operation, about 1 hour. Kidney exposed by lumbar incision from last rib to brim of pelvis. Found it to be very adherent and friable, palpation and incision revealed no calculi; organ was seen to be studded with abscesses, and was removed.

Pathological report of Dr. Ryfkogel. Examination showed the typical picture of suppurative nephritis. The tubules showed extensive degeneration and necrosis, and the interstitial substance was greatly infiltrated with leukocytes. Minute abscesses were numerous. The capillaries were distended with blood. A guinea pig inoculated subcutaneously died from septicemia. Staphylococcus pvogenes aureus and bacillus colicommunis were present in its heart's blood.

May 14th—Cryoscopy, —0.90; May 18th, —1.02; May 25th, —0.7; May 26th, —0.88; 20 minims of ½% phloridzin solution injected at 9:15; urine collected and tested for sugar. 1. Urine 9.45, sugar 1.25%. 2. Urine 10.15, sugar 1.6%. 3. Urine 11.15, sugar 1.0%. Cryoscopy, May 28th, —0.68; June 3d, —0.48; June 15th, —0.86.

From June 1st to 15th had attacks of vertigo, pain localized at end of sternum, irregular pulse, constipation and nausea. June 5th, after a meal consisting of bread, squah and stewed cherries, had violent pains in abdomen localized at xiphoid, nausea, general malaise; vomited twice; temperature 103.5°; pulse 120; icteric anpearance. The temperature remained between 98° and 100° for 8 or 10 days; pulse 90 to 100. Placed on strict diet, but still had spells of nausea. Condition gradually improved, with slight recurrent attacks. June 24th, temperature 98°, pulse 68, general condition much improved. Wound almost healed; sinus ½ inch long, about 1 to ¼ deep.

June 6th—Report of Dr. Harris: Blood: Stained snecimens show nearly all polymorphoneuclear leukocytes. Red-

cells, 4,540,000; white cells, 14,300; hemoglobin, 65%; color-index, 72. Urine: Alkaline, cloudy, much pus, no sugar; albumen, urea 13.5. Cryoscopy, June 18th, —0.83; June 23d, —0.86; July 5th, —1.02; July 9th, —1.06; July 15th, urea, .0085. Cryoscopy, July 19th, —1.04; July 29th, —1.14.

Wound healed, good condition.

August 10th—Many pus cells, granular casts (2), round epithelia.

Cryoscopy, September 29th, —1.08; January 5th, —0.85; February 23d, —1.06.

Case 3.—M. R., 70 years. Patient when first seen (December 6, 1904) by attending physicians was complaining of dyspnea, edema of lower extremities and ascites; enlarged liver; gastro-intestinal disturbances. Little urine, which contained albumen (600-800 cc. per day). Heart enlarged; murmurs at mitral and pulmonary areas.

As the patient complained of great difficulty in urinating, he was catheterized and a large quantity (about 1 quart) withdrawn. Catheterization was difficult, and in about 2 weeks urine contained large amount of pus, which increased, although the bladder was washed daily. Temperature ran a septic course, and the patient was in a more or less comatose condition. Pain on palpation over left kidney. As infection of left kidney was suspected, the following examination was made:

December 31st, both ureters catheterized.

Cryoscopy, right, —0.73.	Left, —0.76.
Sugar—No sugar ½ and 1 hour after injection XXV minims ½% phloridzin.	
Urea, .011.	Urea, .011.
Albumen, .55%.	Albumen, .5%.
Microscopic—Numerous pus cells, red cells, uric acid crystals, epithelial cells, 2 granular casts.	Numerous pus and red blood cells, uric acid crystals, epithelial cells; 1 granular and 2 pus casts.

In this case operative interference was not indicated as the findings showed a parenchymatous nephritis on both sides.

Case 4.—Dr. Eaton's case. Mrs. X., 58 years old. Father and mother died of old age. Has 6 children, the youngest being 18 years. Previous history, menopause 5 years ago. Has suffered from chronic constipation for years.

Present trouble began 5 years ago, when she noticed some trouble in urinating and occasional shooting pains from the lower border of thorax to the pubes on the left side. At times the urine was very cloudy.

Status, November 21, 1904.—Lungs normal with exception of slight accentuation of breath sounds at right apex. Heart and vessels normal.

Urine, 1,600 cc.; cloudy; acid; sp. gr. 1,030; albumen, 1-20%. Microscopic, flat and caudate epithelium, uric acid crystals, numerous pus-cells, no casts. Tubercle bacilli.

November 24th—Cystoscopic at examination showed a contracted bladder, left ureteral opening pouting. Right ureter catheterized; clear urine by bladder; catheterized urine showed much pus and tubercle bacilli.

November 30th—Left ureter catheterized.

Cryoscopy, right, —1.1.	Left, —0.4.
Sugar, 0.4%.	Sugar 0.%
Urea, .0055.	Urea, .001.
Microscopic—Few red cells, leukocytes.	Numerous pus-cells.

December 5th, Dr. Eaton removed small kidney. December 7th, 35 ounces prine; patient doing well. December 17th, cryoscopy, —0.98.

Many more observations could be cited substantiating the statements made at the beginning of the paper, if time permitted. In conclusion, we again wish to emphasize that in every case of pyuria cystoscopy and inspection of the ureteral, openings should be done. If infection of the upper urinary tract is suspected, the ureters should be catheterized and the separate urines subjected to the tests given above. If this is done we are sure that the results in kidney surgery will be more satisfactory than in the past.

DISCUSSION.

Dr. Chas. D. Lockwood, Los Angeles: I would not minimize the value of the catheterizing cystoscope, and I wish to compliment the essayist highly for his painstaking work—but I wish to say that the different forms of segregators now in use are of great value in estimating the functional activity of one or both kidneys. An absolutely correct diagnosis in many cases is possible only after catheterization of the uterus; but in many cases the segregator is equally as accurate, and in some cases where catheterization is impossible, segregation is practicable. If the observation cystoscope is employed before segregation is begun, the bladder as a source of error can be eliminated, and the findings of the segregator relied upon. Harris in this country, and Luys in France, have furnished indubitable evidence in over 200 cases of the accuracy of their methods. I myself have used the segregator in about 50 cases, most of which were followed by operation or postmortem examination, and in the large majority the findings were eminently satisfactory.

I wish also to speak of phloridzin, in this connection, as an index to functional activity. I have employed this agent now in 12 cases, and the results have been so uniform that my confidence has grown with each test.

Tetanus.

J. M. Anders and A. C. Morgan, Philadelphia (*Journal A. M. A.*, July 29th), give a preliminary report of their statistical study of 1,201 cases of tetanus, collected from the literature and by direct correspondence, with special reference to the incidence of the disease in the United States. They find convincing proof that tetanus is invariably the result of the introduction of the germ, and that the so-called rheumatic or idiopathic tetanus does not exist. They also find that it is endemic in all large centers of population, that in some localities where it was formerly common, notably in Long Island, it has become rare, and that occasional small epidemics, traceable to a definite source, occur in limited localities, as, for instance, in hospitals, etc. It appears also that tetanus is more prevalent in the hotter part of the year, that males are more subject to it than females, and that it is less frequent in advanced age. The robust are more susceptible than the weak, and the nervous than the lymphatic. There is much evidence that the disease is transmissible and may give rise to epidemics. The germ, Nicolaier's bacillus, is rarely introduced by the alimentary tracts, but usually through open wounds, all parts of the body being very susceptible. A number of interesting clinical features observed in the cases collected are related, and it was noticed that the characteristic symptoms, especially trismus, were generally present. The diagnostic importance of the tonic contractions as opposed to the intermittent ones in certain other conditions that simulate tetanus, such as strychnia poisoning, is emphasized. The authors found that their studies supported the earlier ones as regards the mortality, which decreases gradually after the tenth day and rapidly after the fifteenth. The study showed clearly the value of immediate radical local treatment, and that the most important thing is to open the wound freely in all directions under general anesthesia. Many patients were more or less benefited by the local carbolic acid treatment, and some observers report good results from the local use of ice or freezing mixtures or treatment in a cold room. For palliative treatment, chloral and the bromids appear to have been most extensively used. Calabar bean has been much employed, and also morphin, which should be used with caution on account of its inhibitory action on the respiratory centers. There is no question as to the value of antitoxin as a prophylactic, the testimony is uniformly in its favor. It should be used in any case in which there is suspicion of tetanus infection. In a well-developed case of the disease it has no appreciable beneficial effect, neither reducing the mortality nor hastening recovery.

NOTICE!

Anonymous communications from several parts of the country, and relating to a variety of subjects, have been received in the office of the Society. Correspondents will please note that under no circumstances will any attention be paid to any communication to which the writer's name is not signed. The name will not be used for publication, when so desired. Anonymity is the contemptible shield of a coward.

A Criticism Which is a Compliment.

[From *Journal A. M. A.*, July 8, 1905.]

Criticism and opposition are signs of vitality. They are sometimes the sincerest flattery, especially when their source and motives are considered. We, therefore, take pleasure in calling attention to a criticism of the work of the Council on Pharmacy and Chemistry of a "chemical company" whose hearty indorsement was never expected and whose opposition is a compliment to the work undertaken by the Council. It is contained in a little pamphlet entitled "The Added Proof," published by the Od Chemical Company, New York, and is being widely circulated with the evident purpose of discrediting the Council among physicians, without whose support this "chemical company" could not exist. The contention seems to be that a proprietary medicine of secret composition is ethical. That is a matter about which the Od Chemical Company is entitled to hold its own opinion; and it ought to be willing to concede the same right to physicians.

The "criticism" is introduced with a biblical quotation: "——, where the evil spirit (sic) answered the seven sons of Sceva, and said 'Jesus I know, and Paul I know; but who are ye?'— and here is their patriotic answer, which they seem to think settles the ethical status of their product: "In all seriousness, whence emanates all this matter? It comes not from liberty-loving Americans—the influence must come from abroad; from those raised and nurtured under monarchical or despotic institutions, accustomed to their every imagination, thought, word and act being gauged, guarded and governed by State Rule, and hence unable to live a free, self-moving-life, but rather longing for guardianship and restraint, and naturally wishing, under the pretense of Ethics, or whatnot, to force a muzzle on every one else. Let us in America have none of it! 'Eternal vigilance is the price of liberty.'" [The latter sentiment we heartily indorse, although we do not see just where it applies in this case.]

We have received many letters and copies of the circular referred to from physicians, but this week can give space to the following only:

Dr. H. P. Mills, Sheridan, Mo., says:

We have often heard of Satan quoting Scripture to prove his point; but this case is unique, in that it is one of admitted identity.

Dr. Hollingsworth of Brazil, Ind., sends in the following copy of a letter he wrote to the Od Chemical Company:

Your pamphlet, "The Added Proof," has just been received. I have been tempted to make your acquaintance on several occasions, but since reading the above pamphlet am very glad to say that I did not bite. You might be surprised to know how many physicians will be likewise impressed. I am sorry to acknowledge that there is an unthinking class of so-called physicians who prescribe such preparations as you advertise, on the testimony of some deluded doctors and the positive assertion made by your advertisement writer. However, we take consolation in the fact that other lines of business have this same class with which to contend—even all manufacturing chemists (I judge by your literature) are not above reproach. Kindly drop my name from your advertising list, and oblige.

Dr. John Dice McLaren, New York, says:

A circular named "The Added Proof" is now being "issued to physicians only." One must consider the source of such a personal and professional affront. The "Od Chemical Company" must have a private telephone, the number not being in the directories. In the Copartnership and Corporation Directory "Od Chemical Company" carries the legend that "Further information 'refused.'" When the business world is thus treated, the professional world cannot hope to be favored with enlightenment. "Od Chemical Company" will not answer its own question, "Who are ye?" "Let the galled jade wince." We are in the right, so go ahead.

Had Dr. McLaren called at the office of Dr. J. J. Lawrence, we believe he might have obtained all the information he desired regarding the Od Chemical Company. While our correspondent is about it, we wish he would find out the exact relationship of the Dad Chemical Company to the Od Chemical Company; the Od Chemical Company to the Sultan Drug Company; the Sultan Drug Company to the Rio Chemical Company; the Rio Chemical Company to the Battle & Company; Battle & Company to the Peacock Chemical Company; the Peacock Chemical Company to the Dad Chemical Company, and all of them to that great representative monthly medical journal that was published for so many years in St. Louis and which now emanates from New York.

EXTRACTS FROM THE ADVERTISING LITERATURE.

A cursory glance through this pamphlet, "The Added Proof," "issued to physicians only," shows that there are back of its publication two purposes—one to ridicule the work of the American Medical Association in organizing the profession and its efforts through the work of the Council on Pharmacy and Chemistry, to get rid of the secret nostrum evil and the other to advertise sanmetto. Just what sanmetto is we do not know, but if we are to take the word of the Od Chemical Company it is "a scientific blending of true santal and saw palmetto in a pleasant, aromatic vehicle." We did not know that saw palmetto and santal were such valuable drugs—we do not find anything to indicate this in our text-books, but evidently these drugs have wonderful virtues if we are to judge by the claims made for them by the Od Chemical Company in their advertising literature.

Sanmetto is not only advertised as a positive cure in the diseases in which the drugs composing it used to be thought valuable, but also in la grippe and its sequelæ; but what physician with even a superficial knowledge of the physiologic and therapeutic action of drugs would prescribe either santal or saw palmetto in influence?

We are sure that the following testimonials from physicians—not from laymen, remember—will prove interesting reading. It should be understood that this is not "a patent medicine" and that the following is not an appeal to an ignorant public:

To Whom it May Concern: I have used Sanmetto * * * also in prolapsus of bladder in women, where congestion of the ovaries and enlargement of the uterus was the cause, with very gratifying results.
J. C. MAXWELL, M. D., Paw Paw, Mich.

Have used Sanmetto in my practice for a number of years. * * * Would recommend its use in senile bronchial troubles.
ORVILLE CURTIS, M. D., Buchanan, Mich.

I used Sanmetto in the case of a man 50 years of age who had suffered from la grippe, leaving him very nervous and weak, with deposits in his urine. Very great depression and almost entire impotence. One eight-ounce bottle of Sanmetto with one-sixtieth (1-60) grain of strychnia almost completely cured him. * * *
ELBERT L. FISH, M. D., West Valley, N. Y.

I have found Sanmetto useful in several cases of neurasthenia from overwork in intellectual lines without being associated with sexual irritations or excesses. In those cases where it seemed to do the most good there was depression of energy consequent upon exhaustion of the vital forces. * * *
M. W. VAN DENBURG, M. D., Mount Vernon, N. Y.

The makers also state in their advertising literature:

In uterine atrophy, dependent on ovarian blight (What is ovarian blight?) its action is unexcelled. In gynecological practice it is much used to promote the growth of the mammæ.

Physicians who are so emphatic in their denunciations of the advertisements of patent medicines in the lay press are respectfully invited to compare those advertisements with the foregoing, which is only a sample of the "literature" sent to physicians by the Od Chemical Company.

PHYSICIANS AND QUACK REMEDIES.

It is difficult to understand the mental quality of an educated physician, who believes that he is acting honestly toward his patients, when he accepts his therapeutic teaching from the advertisements of secret remedies and writes his prescriptions after consultation with the drummer of a drug firm. I formerly

supposed that the sale of large quantities of these secret medicines was due to their use by ignorant physicians who had graduated from low-grade medical schools. Careful observation has convinced me of the error of this view. Some years ago, I read in a cyclopediac work on one of the specialties an elaborate article by one of my hospital colleagues, in which "A———" was suggested in the treatment of a certain disease. I saw recently a letter written by a professor in a great University Medical School, in which he advised that a patient, whom I had referred to him, be given "P———." Not very long ago, I heard a metropolitan professor of surgery discant on the value of "H———;" and about a year since one of my patients told me that she had been advised to take "M———," by a hospital physician of Philadelphia. These facts suffice to show that intelligent physicians, and even teachers, have been led into the illegitimate practice of treating patients with remedies of whose composition they are ignorant.

It is clearly improper for a doctor to prescribe a certain remedy for a patient, when he does not know, and is not permitted to find out, the character and the amount of the powerful drugs it contains. It is also, in my opinion, detrimental to professional integrity for medical journals, conducted under professional auspices, to accept advertisements of pharmaceutical products of secret composition.

Both of these questions have been vigorously discussed in medical circles during recent years. As to the first proposition there can be but one answer, which is that a doctor has no right to use a powerful therapeutic weapon, unless he knows its possibilities for good and evil. These possibilities he cannot know unless he is able to learn how much acetanilid, strychnin, arsenic, mercury or other active ingredient it contains. The propriety of medical journals, published by doctors, increasing the dangerous use of these secret remedies by accepting their advertisements cannot be successfully maintained. In a discussion among some officers of a medical journal, a distinguished professor of medicine once said: "Other journals take them, why shouldn't our journal?" The reply to this query is: "Some doctors accept commissions for steering patients to operating specialists, why not we also?" If the vice of prescribing medicines of unknown composition is to be rooted out, honest doctors must jointly repudiate any such illicit combination with commercial journalism, and individually refuse to prescribe remedies of whose composition they are kept in ignorance.

The remedy for the evil lies in the development of a feeling of individual responsibility in the medical faculty. Let every doctor refuse to accept samples of secret medicines, refuse to waste time talking therapeutics with smooth-tongued salesmen, refuse to debauch medical science by believing the mendacious advertisements called by the trade "literature," and treat his patients honestly by giving them, what they pay for, the best result of his own knowledge and experience.—John B. Roberts, Philadelphia. Pres. Add., 29th Annual Meeting Am. Acad. Med.

SECOND ANNUAL REPORT OF TUBERCULOSIS COMMITTEE OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA FOR THE YEAR 1904-5.

At the last meeting of the Medical Society of the State of California, the Tuberculosis Committee recommended that the work of the committee be continued for the following purposes:

1. To keep in touch with similar work done in other localities.

2. To institute educational measures.

3. To secure the adoption of anti-expectoration laws.

4. To secure the proper disinfection of railway coaches.

5. To secure the establishment of a state sanatorium for the treatment of the tuberculous poor.

The committee was continued, and instructed to endeavor to carry out its recommendations, and today we wish to present to you our second report and the results of our labors.

We note with pride and satisfaction that the interest in the prevention of tuberculosis is everywhere growing. People are awakening to the fact that tuberculosis is a communicable, preventable and curable disease, and they are demanding its prevention and cure. Scarcely is there a civilized nation in the world to-day that does not have its organization for the prevention of the "great white plague." Kings, presidents, people of all stations in life are uniting against this common foe. Tuberculosis can and must be suppressed.

Fortunately, there is no difference of opinion as to the measures which are necessary to prevent this disease. Of course individuals differ as to what measures are most important; but, whether in the frozen north of Norway, Sweden and Finland, or in the sunny climes of southern Europe and our own Southland, the same preventive measures are found necessary, and when properly applied, efficient. These measures are:

1. Education of the people as to the nature of the disease.

2. Destruction of bacillus bearing discharges (especially sputa).

3. Elevation of the plane of living of the poor (better food and more attention to the laws of hygiene and sanitation).

4. Aid for those afflicted such as can be offered in: (a) Dispensaries; (b) sanatoria, for favorable cases; (c) colonies for convalescents; (d) hospitals for incurables.

There is no question but that tuberculosis could be stamped out in a generation, if these measures were adopted generally. In Prussia, where preventive measures have been most diligently applied, it is estimated that at the present rate of decrease, tuberculosis will be extinct in 1927.

The United States has been somewhat slower than most other nations in taking up this problem, but we record with pride the great interest which is now awakening. We now have a representative national organization for the Study and Prevention of Tuberculosis, which will hold its first annual meeting in Washington, May 17th and 18th of this year. There are 41 associations for the prevention of tuberculosis in the United States, 32 special dispensaries for treatment, about 100 sanatoria, hospitals and general hospitals which admit tuberculous patients, affording accommodations for about 8,000 patients; 15 hospitals for the insane, with special provision for the tuberculous, and 7 prisons with special provision for the same.

This is but the beginning, yet a very good start it is. The State Sanatorium movement is progressing with great rapidity. No less than 20 states are now wrestling with this problem. In Massachusetts, a State Sanatorium has been in existence since 1898. Last year New York's state institution at Raybrook was opened. Rhode Island will begin to receive patients at Pascoag this year. The Tuberculosis Committee of the State Medical Society of Illinois has opened a tent colony. New Jersey has made sufficient appropriation for the erection and equipment of an institution at Glen Gardner. Pennsylvania's legislature has just made appropriation for the erection of two institutions in that state. Minnesota and Ohio both have sites secured and partial appropriations for the erection of the buildings. Iowa's legislature last year appropriated $1,000.00 to be expended by the State Board of Control in investigating the desirability of a State Sanatorium. In Vermont, New Hampshire, Maryland, Georgia and Wisconsin there are commis-

sions which have been appointed by the Governor to report on the desirability of a State Sanatorium, and in Indiana, Illinois, Kansas, Kentucky and Louisiana attempts are being made to awaken the public to the necessity of such institutions. The work in our own state we shall deal with later in this report.

In the way of education, your committee endeavored to form local anti-tuberculosis leagues, but owing to the lack of co-operation, were compelled to give the matter up for the present. However, we are glad to announce that we have succeeded in interesting some influential people in San Francisco in the work, and hope soon to have a lively organization started.

The disinfection of coaches was taken up with the chief surgeons of the Santa Fe and Southern Pacific Companies, and we were informed that careful disinfection of coaches is being carried out.

With the result of our efforts to secure the establishment of a State Sanatorium, you are doubtless all familiar. We secured the passage of a bill through the legislature, but it died in the hands of the Governor. Your committee does not want to take too much credit for the work which secured the passage of this bill, but wishes to recognize the valiant services rendered by other organizations, especially the California Club and the Merchants' Association of San Francisco. At first, the California Club and your committee were working independently, but when it was found that our ideas were similar, we joined forces and worked in perfect harmony.

The bill was drafted by your committee and the attorney of the California Club. It contained what we believed to be the best features of the bills establishing similar institutions in some of the Eastern states, and some things which our own experience suggested to be of value. Upon the whole, we believe the bill was good, and had Governor Pardee seen fit to give it his signature, we believe it would have given California an institution of which she could be proud.

After the bill had been drawn and placed in the hands of the senator whom we had chosen to introduce it, your committee received word that the governor was absolutely opposed to the measure; and unless he could be moved from the position which he had assumed, it was useless to push the measure through the legislature. Two members of your committee, accompanied by Dr. F. C. E. Mattison of Pasadena, went to Sacramento and held a conference with the governor, but were unable to move him. He admitted the necessity of such an institution, but would not consent to its being established at the present time. He, however, agreed to allow a small appropriation for educational purposes. We went away disappointed, but feeling that we had started a movement which would ultimately bring the sanatorium.

Returning via San Francisco, we met by appointment the board of directors of the Merchants' Association, and laid the matter before them. They said that such a meritorious measure should be pushed through, and proffered their assistance. We next met a committee from the California Club. They, too, were in favor of pushing the measure, believing that the fact that such an institution was so badly needed, and the fact that it was so generally demanded, would have great weight with the governor, if the measure were passed up to him.

Through the untiring efforts of these two organizations, together with what assistance we could give, the bill passed the senate without a dissenting vote, and the assembly with only 6 votes recorded against it. The rest you know. The measure died for want of the governor's signature.

While we did not secure this much-needed institution for our state, we did not fail. The matter is simply postponed. Those who demanded it this time will continue to do so. They will interest others, and when the legislature meets again, this matter will once more be taken up, and we trust that California will then make provision for her tuberculous poor.

We would recommend that the work of this committee be continued, and that its efforts be directed toward the dissemination of the truths regarding this disease and the measures for its prevention, and that it continue its efforts for the establishment of the State Sanatorium for the tuberculous poor.

F. M. POTTENGER,
GEORGE H. EVANS,
GEORGE L. COLE,
JOHN C. KING,
E. VON ADELUNG,
Committee.

DISCUSSION.

Dr. George H. Evans, San Francisco—The management of tuberculosis probably presents more interest to the community to-day than does any other phase of medicine, and whether viewed from the medical, humanitarian, sociologic or economic standpoint, it is holding a prominent place in the arena of the world's activities, and is demanding attention from physician, philanthropist, sociologist and politician. It has ceased to be merely a medical question; it is no more a problem to be dealt with locally alone, for by the universal devastation of its ravages, and the recognition of the fact that this devastation is avoidable, it is insistently knocking at the doors of legislative halls throughout this and other countries, and demanding that measures of prevention be enacted whereby this scourge may be eliminated. The King of England recently, in an address, very tersely remarked: "Tuberculosis is a preventable disease; if preventable, why not prevent it?" And those interested in this subject are asking this question to-day, everywhere that tuberculosis is prevalent. These preventive measures have reached their most potent effects in the development of sanatoria, practical training schools in hygiene and sanitary living, and since 1859, when Brehmer of Görbersdorf, Germany, established the first sanatorium for this purpose, the movement has become more and more popular, as the advantages of this method have been made apparent, until now all civilized countries have such institutions established. Dr. Pottenger has elaborated the economic features of the sanatorium in previous papers before this Society, and has shown as thoroughly as figures can show, the saving that would accrue to the state, by investment in sanatoria. These figures are not in any way overdrawn, as anyone knows who has given much thought to the socialistic and economic sides of this problem; but I believe that probably the most practical illustration of this truth is in the fact that during the last year the German insurance companies invested over $1,000,000.00 in sanatoria for consumptives, and spent almost another million in maintenance. Philanthropy is not the structure upon which the principles of life insurance companies are founded, and it is only because they have learned that it is a good business principle to cure their policy holders who become tuberculous that they have expended these large sums of money. It is then from an economic standpoint that we must appeal to our legislators to enact laws providing for the establishment of State Sanatoria.

There is a work, however, which is so closely associated with the sanatorium idea that it must be considered part of it. I refer to the tuberculosis dispensary. Believing as we do that tuberculosis is probably the most curable of the chronic diseases when recognized in its incipiency, it is deplorable to contemplate the enormous sacrifice in life among the working classes because the true meaning of the incipient symptoms is not recognized until this early stage is past. The persistent cough, the loss in weight, and the slight febrile reaction go unheeded, or what is probably worse, the "patent medicine" bottle is resorted to, and thus by stimulation the deluded individual allows the disease to progress until

such time as the evidences of gross lesions of tuberculosis mark all too plainly an advanced stage. A dispensary in every populous community would provide a means whereby these people could receive early treatment, and what is much more important than medical treatment, could receive instruction in hygienic living, and could have this practically demonstrated to them by a corps of attendants, trained for this purpose, where those who were unable to secure a proper amount of nourishment could have the same supplied to them, and thus the dispensary would lighten the burden of the sanatorium, and eventually make it unnecessary, for I believe that such preventive measures can and will eradicate this disease from the face of the globe. All of this cannot be accomplished, however, until the public and the medical profession are more keenly alive to the possibilities in this direction. You all probably know that the Tuberculosis Committee worked hard this year to secure legislation providing for a State Sanatorium, but you probably do not know that only a minority of the County Medical Societies passed resolutions urging this legislation, and they were all requested to do so. This statement is not intended in a spirit of criticism, but merely to call attention to the fact that the importance of this subject is not sufficiently realized by our own profession. Let us therefore enter more enthusiastically into this great work. Let us, by means of popular lectures, by contributions to the secular press, and by other literature, bring this subject prominently before the people. Let us interest those in influential positions to help us in the formation of anti-tuberculosis societies, and provide means for the maintenance of dispensaries for the treatment and education of the ambulatory tuberculous poor. Let us create a popular demand in every city for a hospital for incurable patients. Let us, in the interests of a large proportion of the inmates of our orphan asylums, placed there because this disease was not recognized in their parents in time; in the interests of a large number of the criminals in our state penitentiaries, placed there because disease breeds vice, in the interests of our taxpayers who support these institutions, in the interests of ourselves and our own families, let us prosecute these preventive measures, which will cause this scourge to disappear from our midst.

COUNTY SOCIETIES.

Marin County.

The monthly meeting of the Marin County Medical Society was held May 6, 1905. The question was discussed as to what action should be taken by a number of medical societies in the matter of consultation with contract or lodge physicians.

It was resolved that no member of the medical society should consult with a lodge physician.

On the arrival of a new physician to this county, a communication will be sent to him in regard to the matter so that he may know the requirements for admission into the County Medical Society and also the California State Medical Society.

WILLIAM J. WICKMAN, Secretary.

Kern County.

At the last regular meeting of the Kern County Medical Society, which was held June 19th, the officers for the ensuing year were elected as follows: Dr. F. J. Crease, President; Dr. H. W. Owen, Vice-president; Dr. W. S. Fowler, Secretary and Treasurer.

Amendments to the constitution and by-laws were offered making any duly licensed physician "who does not practice or support any exclusive system of medicine" eligible to membership.

Dr. Kellogg presented clinically a very interesting case of resection of the humerus in an old man, which was made the subject of an X-ray demonstration by Dr. Carson.

Dr. H. G. Crease was admitted to the roll of membership which now includes nearly all the physicians of Bakersfield and Kern City.

The next meeting will be held on the third Monday in July, and an entertaining program is being arranged.

W. S. FOWLER, Secretary.

Ventura County.

The second quarterly meeting of the Ventura County Medical Society was held on June 19th at the residence, in Ventura, of Dr. T. E. Cunnane, vice-president of the Society.

Dr. Cunnane was the orator of the evening, his subject being, "Eclampsia." Having had a large personal experience with this very serious affection, Dr. Cunnane was enabled to give the subject an unusually complete exposition. He recited at length his own treatment of the disease, which accorded with the practice generally in vogue at present.

President Livingston opened the discussion, and was followed by the members, resulting in an interchange of views and personal experiences. At the conclusion, the Society voted thanks to Dr. Cunnane for his very able address.

The members then repaired to the banquet provided and presided over by the genial hostess, Mrs. Cunnane, the dainty viands being much relished.

The meeting was voted a success.

CHARLES TEUBNER, Secretary.

Santa Barbara County.

The Santa Barbara County Medical Society held its regular meeting at the Arlington Hotel, June 19, 1905. It was called to order by the president, Dr. Wm. H. Flint. The following members were present: Drs. Anderson, Barry, Conrad, Cunnane, Dial, Flint, Newman and Sidebotham.

The paper of the evening was on "Valvular Lesions of the Heart," with illustrations of "Schott's Method" of treatment, by Dr. Barry. After devoting considerable time to the anatomy and vital statistics as shown by the reports of the California State Board of Health, the Doctor gave a detailed description of the Schott method as practiced by the originators at Nauheim. The treatment is purely mechanical, consisting of baths and passive exercise; the principle involved is "movements without design weaken the heart; movements with design strengthen it." It is not a system of gymnastics; it is the production of regulated movements with little exercise and no fatigue. He gave seven rules to be observed by the operator, viz.: (1) Each movement is to be performed slowly and evenly; (2) Each single and combined movement to be followed by an interval of rest; (3) No movement to be practiced twice in succession; (4) The movement should not accelerate action of heart or increase frequent breathing; (5) The appearance of any of above symptoms should be the signal for the suspension of the exercise; (6) Patient should be instructed to breathe regularly; (7) Constricting bands should be removed from all parts of the body.

The Doctor then presented a patient upon whom he demonstrated the method.

Dr. Robert Creese, of Santa Maria, was elected to membership.

W. B. CUNNANE, Secretary.

Santa Clara County.

At the regular stated meeting of the society, held in the parlors of the Bristol Hotel, San Jose, on the evening of the 21st of June, 1905, and attended by Doctors Harris, Lusson, McNary, Whiffen, Wright,

Frasse, Asay, Osborne, Jordan, Southworth, Reese, Kelly, Burns and Wagner, the annual election of officers was held, resulting in the selection of J. Lambert Asay, president; I. N. Frasse, 1st vice-president; E. R. Wagner, 2d vice-president; A. E. Osborne, secretary, and J. F. Burns, treasurer. The president on assuming the chair announced the appointment of the several standing committees (as here given), and we sincerely trust that the ensuing year may exceed all preceding years in harmony and prosperity.

Committees: Executive: P. A. Jordan, Chairman, L. V. Saph, M. V. Mulcahy. Finance: E. R. Wagner, Chairman, W. F. Snow, R. E. Reese. Admissions: E. F. Holbrook, Chairman, Paul Sanford, H. J. B. Wright. Publication: A. S. J. Smith, Chairman, R. A. Whiffen, J. DeL. Grissim. Ethics: Geo. F. Witter, G. W. Fowler, C. E. Hablutzel.

At the next meetiug the following resolution, offered at the last meeting by Dr. H. J. B. Wright, will come up for action:

"Amend Section 3, Article 1, so that the same shall read: The election of officers shall take place at the regular meeting in January of each year, on which occasion an oration or essay shall be delivered by the retiring president."

The object of the resolution is to have the business of the County Society conform to the changes inaugurated by the State Society and is in accordance with the latter's suggestions and advice.

The president announces that it is his intention to make a fraternal visit in company with the secretary, to each member of the society and also to all ethical members of the profession in the county, with a view to further the interests of the society in general and to obtain the membership of eligibles.

The next regular meeting of the society will be held on Wednesday evening, July 19, 1905, at the Bristol Hotel, San Jose, at the hour of 8 sharp. Dr. Jordan, Chairman of the Executive Committee, announces that the paper for the evening will be by Dr. Whiffen, subject, "Ectopic Gestatiou," with discussiou to be opened by Dr. Davis.

A. E. OSBORNE, Secretary.

Riverside County.

The Riverside County Medical Society held its regular June meeting at the home of Dr. Martin. All members who resided in the city were present. Dr. Roblee, the president, occupied the chair. The minutes of the last meeting were read by the secretary and approved.

Communications were received from the State Medical Society, also from Sonoma County Society, in regard to contract and lodge practice. The secretary was directed to inform these societies that the Riverside Society was opposed to such practice, and that for the past five years they had had a written agreement to that effect.

Dr. Van Zwalenburg, on behalf of the committee, made a final report of the financial side of the recent meeting of the State Medical Society in Riverside. Dr. Baird moved that the report be received and the committee be discharged.

It was moved by Dr. Sawyer that the committee of investigation be instructed to look into the legal status of all who profess to be physicians, in this county, and to report at the next meeting of this Society.

Dr. Van Zwalenburg read a paper on the "Repair of Lacerated Wounds of the Perineum." It was a complete and clear exposition of the subject, and elicited the warm praise of the members.

Dr. Robertson gave an interesting account of an obscure and complicated case which he recently encountered.

Mrs. Martin, the hostess, then invited us to the dining-room, where a delicious feast was spread, and to which we did full justice. Just before adjourning, Dr. Walker moved that a vote of thanks be given Dr. and Mrs. Martin for the splendid manner in which we had been entertained.

SAM'L OUTWATER, Secretary.

Riverside Personals.

Dr. and Mrs. C. W. Girdlestone will go East this summer.

Dr. A. W. Walker will spend some time in New York.

Dr. and Mrs. H. M. Robertson will leave for Europe some time in July.

Dr. and Mrs. Sam'l Outwater expect to spend the summer in New York.

Dr. I. A. McCarty of Corona is now in Iowa.

San Bernardino County.

San Bernardino County Medical Society met pursuant to adjournment in the Y. M. C. A. Building in Redlands at 2 o'clock P. M., President Dr. Hoell Tyler in the chair and Dr. J. M. Hurley, secretary, at the desk.

Reading of minutes of last meeting and adoption of same. Application for membership in this Associatiou of W. B. Power was preseuted by Dr. Tyler and referred to Board of Censors. Report of the Board of Censors upon the application of W. P. Burk of Highlands was presented. Report accepted and Dr. W. P. Burk's name was ordered to be added to the roster of names of this society. Bills presented were audited and ordered paid.

Communication from Dr. C. C. Browning, late president of this society, was read by the secretary, the same was ordered filed. Communication from the secretary of the State Society was read by Dr. J. M. Hurley relative to contract medical work for societies, etc. Also a series of resolutions from the Sonoma County Medical Society. Dr. Strong moved the same be filed, and that a committee of two be appointed to draft resolutions embodying the sense of this Association relative to contract medical work. Dr. Peyton and Dr. Blythe were appointed such committee to report at the earliest date convenient to such committee.

Committee appointed to consider medical contract work reported as follows:

To the Officers and Members of San Bernardino County Medical Society:

We, your committee, appointed to consider and report upon the subject of contract service to lodges, etc., beg leave to report as follows:

"*Resolved*, That it is the sense of this Society that we earnestly protest against our membership entering into any contract, calling for medical or surgical work for societies either of the character of lodges or benevolent organizations."

(Signed) DR. BLYTHE,
DR. PEYTON,
Committee.

The report was accepted and adopted by this Society.

Dr. Moore read a paper on tuberculosis as an infectious disease. This paper was discussed by Dr. Moseley, who favored Dr. Moore's views as to the infection of tuberculosis rather than inheritance, and urged the profession to use all means in their power to prevent the spread of tuberculosis whenever possible. Dr. Wheat, member of the City Board of Health of Redlands, gave his views upon tuberculosis, and the custom of tuberculosis subjects expectorating on the walks and other public places being a pernicious habit and one frought with danger to the public. He also gave his experience in disinfecting houses that had been occupied by tuberculosis subjects. This paper was discussed by Drs. Ide, Majors,

McDonald, Strong, Burk, and Mills. Preventing the spread of tuberculosis by use of disinfectants was mentioned. Dr. Moore closed the discussion.

Dr. Mills presented a case of prostatectomy, also presented the patient, who is an old man of seventy-five years of age. The patient had made a quick and good recovery. The Doctor presented the prostate gland that he had removed in this case. He also gave his technic in his case, it being the superpubic. He favors this route as being less risky. Dr. Burk asked the question, "Can the patient since the operation stop his water when he desires; also can he retain it at will or during the normal time?"

Dr. Evans of Highlands presented a case of osteomyelitis in a boy. The bones of the left leg necessitated amputation above the knee. The case had not entirely recovered.

Dr. Moore presented a case of confinement in which the patient had convulsions, the patient having uremic poisoning; but thought the symptoms may have been aggravated by gelsemium that had been administered. Dr. Tyler discussed this and referred to the importance of this case in relation ot the profession generally.

Adjourned to meet at 2 o'clock P. M., the second Wednesday in October, 1905, in the old Courthouse in San Bernardino, California.

J. M. HURLEY, Secretary.

Sonoma County.

Our Society met in Dr. Wheeler's office, Healdsburg, Dr. A. McG. Stuart, presided. There was a goodly number present and the meeting was spirited and instructive.

The Memorial Committee appointed by the president, and consisting of Drs. S. S. Bogle, G. W. Mallory and R. M. Bonar reported on the death of our late brother, Dr. M. M. Shearer as follows:

On May 28, 1905, Melville M. Shearer breathed his last. Peace be to him; hope to those who mourn for their departed loved one. Dr. Shearer was our first president, but for the last year had not been able to attend our meetings because of his poor health. He was a native of Ohio, born September 22, 1842, graduated from the Medical Department of Iowa University in 1863. He served in the 48th Illinois Volunteer Infantry, ranked as Major of Cavalry and made the famous "March to the Sea" under General Sherman, and served for 8 years with Generals Miles, Custer, Oaks and Ward. He spent 2 years at the Presidio, then came to this town, 35 years ago.

Dr. Shearer was a Knight Templar, and was for several years county physician. He did what he could for mankind. The memories of his many loving deeds, his great skill in relieving the distressed, his kind, sympathizing heart, will always remain with us. We, the medical profession, and friends deplore the passing away of this really great, good man.

The paper of the evening, by Dr. W. J. G. Dawson, on "Medical Jurisprudence" was much enjoyed. Many good things were brought out concerning our rights and those of the patients. That the prescription belongs to the doctor and not to the patient is a good thing to remember.

Dr. Crump followed in his usual pleasing manner. The resolution concerning life insurance examinations and benevolent societies was withdrawn.

At the close of the meeting we enjoyed a banquet, and at 1.30 A. M. started for our homes in automobiles, to meet again July 13, 1905, in Dr. Mallory's office, Santa Rosa, Cal.

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Our Society met July 13th in the Secretary's office with Vice-president A. McG. Stuart in the chair. The application for membership of Henry J. Trachman was received and referred to Censors. Many letters from various county societies relative to contract work were read and placed on file. The Committee on Condolence reported on the death of Dr. Shearer. Then the program of the evening was taken up. A lesson in osteology by Mark Delafield Mallory, the 5 year old son of Dr. and Mrs. G. W. Mallory, was of interest to all. The young man almost since infancy has been interested in the study of the human body and its parts and functions. He was quizzed and without much effort told the older and wiser ones the names of about ⅘ of the bones comprising the human structure. It is the boy's wish and the hope of his father that in after years he will be able to write "M. D." after his name.

A paper entitled "Some Things Done by the Profession" by Dr. G. W. Mallory was read. We took up hygiene and several speeches were made on that subject.

The next meeting will be held August 10th, in the office of the secretary. A paper entitled "Therapeutics" will be read by Dr. Edward Gray. Discussion by Drs. J. W. Seawell, A. M. Thomson, and W. J. Kerr.

We expect a report on the A. M. A. by our president and several others who attended the Portland meeting.

G. W. MALLORY, Secretary.

MEDICAL SOCIETIES.

Oklahoma State Medical Association.

At the last meeting of The Oklahoma State Medical Association, held in Guthrie, on May 10 and 11, 1905, officers were elected as follows: Dean, C. D. Arnold, El Reno; President, R. H. Tullis, Lawton; 1st Vice-President, N. Rector, Hennessey; 2d Vice-President, C. T. White, Lamont; 3d Vice-President, R. D. Lowther, Norman; Secretary-Treasurer, E. O. Barker, Guthrie. Dr. J. A. Hatchett, of El Reno, was elected delegate to the A. M. A., and Dr. A. K. West, of Oklahoma City, and Dr. Ira B. Bartle, of Carmen, were elected alternates.

The place of the next meeting was fixed at El Reno. which will take place as follows: First meeting of the House of Delegates will convene at 7:30 P. M., on the second Tuesday in May, 1906, and the scientific body on Wednesday and Thursday following.

It was unanimously decided that no social function shall be allowed to interfere with the scientific sessions.

Out of the 26 counties in the territory 24 are now organized with a membership of 405. Many good papers were read and discussed.

California Academy of Medicine.

The regular meeting of the California Academy of Medicine was held June 27, 1905, the president, Dr. Dudley Tait, being in the chair.

Diaphragmatic grooves on the liver.—Dr. R. O. Moody stated that two classes of grooves occur on the liver; first, those running parallel to the ribs and apparently due to the impression left by the ribs on the liver. These occur most frequently in women who lace. The second class of grooves run in the opposite direction, i. e., parallel to the falciform ligament, and have been termed diaphragmatic grooves. These grooves are found in about forty per cent of bodies coming to autopsy. They are usually found on the upper and anterior surface of the right lobe and may be single or multiple, as many as nine being found on one of the cases here reported. In form they vary from mere slits to more or less wide furrows, being one to eighteen millimeters deep and one and a half to eleven centimeters long. They occur with greatest frequency in old people but they may be found even in the fetus, three of the latter class being on record. Among the causes that have been believed to be responsible for these grooves are congenital changes in the diaphragm, constriction of the

thorax or abdomen by tight clothing, irregularities on the diaphragm produced by such causes as diaphragmatic pleurisy or local peritonitis, and a relatively too rapid growth of the liver for the size of the abdominal cavity, which throws the former into folds.

Dr. George Blumer stated that he had often noticed these folds at autopsy and that they seemed to occur more frequently in women than in men, and more frequently in those who laced.

Dr. Dudley Tait called attention to the importance of a knowledge of these grooves to the surgeon because they may be encountered at exploratory operations.

The relation of Hodgkin's disease to lymphosarcoma. Dr. H. W. Gibbons called attention to the great confusion that has arisen in the literature relative to the nature of certain enlargements of the lymphatic glands. Hodgkin's disease is characterized by enlargements of the lymphatic glands and tissues in the body, which enlargements usually remain discrete. It is usually accompanied by enlargement of the spleen, irregular fever, secondary anemia, absence of leukocytosis and severe cachexia ending in death. Lympho-sarcoma is distinguished from Hodgkin's disease clinically by the fact that the growth does not remain confined to the lymphatic tissue, but tends to infilterate the surrounding tissues. Reed, Longcope, and Simmons have shown that Hodgkin's disease is characterized by a definite microscopical picture, differing from the microscopical picture of both glandular tuberculosis and lymphosarcoma. Of the nine cases studied by the speaker, all presented the typical microscopical characteristics of Hodgkin's disease, as described by these authors; with this important exception, that in every case the capsules of some glands were found to be infiltrated by the new growth. In five cases, the new growth had broken through the capsule into the surrounding tissue where it was surrounded by a new capsule. In two cases, involvement of the muscle, salivary glands, and fasciæ had occurred. In the liver in three cases, the tumor could be observed invading the walls of a vein and passing through them. The speaker was inclined, therefore, to regard Hodgkin's disease as a malignant process rather than as a chronic infection. Yet it is still distinguishable from true lymphosarcoma by the nature of the cells that make up the tumor.

A. H. HEWLETT, Secretary.

Redlands Medical Society.

The May meeting of the Redlands Medical Society was held in the Y. M. C. A. parlors on Wednesday afternoon, the 17th. The members present were Drs. Strong, Evans, Power, Taltavall, Moseley, Wynne, Tyler, Wheat, Moore, Sanborn, Blythe, Shreck and Avey.

The president, Dr. Sanborn, presented correspondence received from Governor Pardee, in which the Governor explained his reasons for vetoing the bill providing for a state sanatorium for tuberculosis. Dr. W. B. Power read an interesting paper on hernia, illustrated by diagrams. Dr. Power also reported a successful operation of perineal prostatectomy which he had recently performed, and exhibited a prostatic tractor, made by a local mechanic, which had been of great service in the operation.

* * * * *

The June meeting of the Society was held on the 21st inst., with a full attendance of members.

Dr. Antoinette Bennette, of San Bernardino, and Dr. Burk, of Highland, were visitors. Dr. H. M. Haskell was elected a member. Dr. Antoinette Bennette was proposed for membership. The president, Dr. Sanborn, called attention to resolutions adopted by the Sonoma County Medical Society in regard to contract practice and fees for medical examinations for insurance companies and benevolent societies, and, after some discussion, appointed Drs. Blythe and Payton a committee to draw up resolutions expressing the views of this Society. Dr. C. C. Browning, of Monrovia, read a paper on "Tubercular Meningitis," based upon a case which he had recently treated. Dr. Browning dwelt upon the value of prophylaxis and the importance of making a diagnosis as early as possible, and expressed the opinion that a successful treatment for these cases would be discovered. In the discussion which ensued most of the speakers endorsed the views of Dr. Browning. Dr. Tyler reported a case of hydropneumothorax. The society then adjourned until the third Wednesday in October.

WM. A. TALTAVALL, Secretary.

San Francisco Society of Eye, Ear, Nose and Throat Surgeons.

The regular meeting was held on June 15th, 1905, in the rooms of the San Francisco Polyclinic, the president, Dr. Pischel, in the chair. It was decided to tender a banquet to Prof. Hirschberg, of Berlin, Dr. Holmes, Chairman of the Section on Ophthalmology of the A. M. A., and to the visiting specialists.

Mrs. Holden, principal of the deaf and dumb department, of the Harrison Primary School, gave a practical demonstration of how the deaf and dumb mutes were taught. A number of children were shown, all in different stages of progress and demonstrated to the society.

The sense of sight is trained by many clever devises, the teacher using practical means. Color sense is also developed.

Lip reading is included under the sense of sight, and in this the children receive marked attention, as it is possibly the most useful training they receive.

The children were next blindfolded and had to guess what different things were by putting them into the mouth. This develops the sense of taste.

Mrs. Holden now demonstrated how the sense of touch was cultivated. She placed a number of samples of cloth before the children and allowed them to pick out certain pieces, then with the eyes closed, the child had to tell which piece it had picked out, using only the sense of touch. The other children were all very happy if one child got the piece wrong. Naturally only some material is used that is distinctly marked or ridged. After that they place one hand on the sounding board of a string-instrument, with backs turned, and beat the time while the teacher plays a tune, counting one, two, three, etc. As soon as the instrument stops the children know it. This is known as beating time. This work is generally done with the piano. The teacher then took a ruler of wood and placing one end on the mastoid region, the other end in contact with the counting-board, the child is told to notice the vibrations. They are taught the high and low tones by the vibration. An English lesson is then given. The teacher has some acorns and green leaves and moss which have come from the country. The children are first told where these come from, pictures are drawn by them of the country and hills and the farmhouse where the lady lived who sent them. Branching off of this they are told about the farm, the cows and the butter. At the school they are given the milk and churn their own butter. They are told of the stage which took the ferns and things to the postoffice in the country. Pictures are drawn of the stage and the postoffice, then the train which brought the things to Oakland, the ferry is described which brought them to San Francisco, and then the children were taken to the ferry postoffice and the progress of mail distribution described to them. In object lessons of this sort the children have all been taken to the sugar factories and glassworks, and anything of that sort which carries out the idea of their lessons. Drawings are represented by the children. On pointing to the pic-

tures the children try to tell the story and call out the various objects pointed to. Also to spell the names of the plants and describe the different ones, and name each step of how they got here.

The teacher remarked that although the enunciation was not perfect and the progress was slow, the fact that children could take their places with their immediate friends and in their homes, paid for the time and patience. They could probably not take their places in the world. She said she had been 13 years at the work and had not found one child who could not be taught sufficiently so as to be understood by others. She referred to Alexander Bell, who said that mutes should be taught to speak so as to take their places in the family even if the outside world could not understand them.

Dr. A. P. Hall read a paper entitled, "The History and Demonstration of Teaching Deaf and Dumb Mutes," with the following discussion.

DISCUSSION.

Dr. Welty—There is a great deal to be said on this subject. When the pathology of deaf mutes is thoroughly understood, it becomes apparent at once why so little can be done for the real condition. In most of the cases there are remnants of hearing left which can be demonstrated by Bezold's Tuning-Forks. When you have found the tone that the patient can hear, begin by the Urbantschitsch method, which is a development of the remaining sound perception apparatus. This is a long and tedious method; at the same time good can be accomplished in all cases. It is more of scientific interest than of practical application because the time expended on these patients extends over a period of years of daily training of several hours each. Mrs. Holden has demonstrated what can be done in another way. This is very good and demands our utmost consideration. In some of these cases a great deal may be accomplished when the deafness is due to lesions of the sound-conduction apparatus. In fact one of the children in this school consulted me. There was destruction of the entire drum membrane and cholesteatoma in both ears. In the right ear granulation tissue protruding from the antrum and a thickening of the mucous membrane of the inner ear. The labyrinth was not absolutely intact, but from the various tuning-fork tests her hearing would have been benefited by the radical operation, the possibilities of cerebral complication eliminated and in every respect the patient placed in a better condition. The father would not allow an operation and the child of necessity is steadily growing worse. In other words, the cases of deaf mutes that can be benefited by operation must have the labyrinth intact or very nearly so.

Dr. Fredricks—Of course this is an extremely interesting demonstration. I was glad to see it. We all run across children of this kind and as long as we cannot restore the hearing or provide them with hearing, it is very well to know somebody who will take them and provide them with other means of communicating with the world. This whole method is merely a method of lip reading. I do not see that they are taught to appreciate sounds such as they are in the Church method. I know of one family of deaf mutes—the father was a classmate of mine in Berkeley—the wife is a deaf mute also, and they have seven children, who are all normal. I met the father at a class dinner and he always brings his eldest son with him, and it is arranged that he sits opposite his father and tells him everything that is going on. I am surprised that the Auburn Church method is not more used in this country. It takes a long time, but it is about the only thing that we can work with where there is a remnant of hearing left. I wrote a paper about six years ago on aural gymnastics.

Dr. Hall—There is a great deal of theory in watching these cases. Really it is all theory. The system of lip teaching and lip reading of course differs from the French method of spelling by hand. What I wanted to point out this evening was the advantages that the deaf have and their capability of being educated, and what they could perform after they were taught and the advantages they were having in the school system at the present time. In regard to hearing, I do not think there is a child here to-night that can hear anything the way we hear. I have tested pretty closely. I had one child with me nearly a year, and I have watched it very closely. It is now attending school and developing very rapidly and gaining knowledge and can speak, and I have thought sometimes he could hear. I think it is all from the vibration of the voice. You can put this child in a room and start a phonograph in the next room and he can tell you when it is playing.

The society then adjourned until September.

W. SCOTT FRANKLIN, Secretary.

San Francisco Polyclinic Gathering.

Regular meeting, May 3, 1905; the president, Dr. H. A. L. Ryfkogel, in the chair.

Sypbilitic Involvement of the Liver; presented by Dr. Chas. G. Levison.—J. C., 34 years of age; married; attorney. Previous illnesses: Had typhoid 12 years ago. Synovitis of knee 6 years ago. Malaria often (?); 8 years ago suffered from double vision and severe headaches, which cleared up under the use of the iodides. Present trouble began 4 years ago with a trauma of the lower part of the right chest, at which time he coughed and expectorated considerably. He also had at this time severe pain (pleuritis). Since then he has had similar pain at various intervals. This has never been severe, simply a sore feeling, which at times radiated towards the shoulder and at other times towards the unbilicus. Pain was less when the patient was on his back, and was quite uninfluenced by diet. Has never had fever, nor has he been jaundiced. Patient has felt for some time a crackling sensation under the right ribs with each deep inspiration.

Examination shows a bulging in the right hypochondriac region. Marked tenderness. No rigidity of abdominal muscles. Over this bulging in the right hypochondrium, a crepitus was distinctly felt on light palpation. Heavy manipulation made this crepitus more marked. Liver not increased in size from above, but the liver dullness extends to within 2 inches of the navel. Spleen was not enlarged. Auscultation of liver region elicited a crepitus, just what one would expect from the grating of calculi against one another. The diagnosis of gall stones was made on account of this crepitus, so easily elicited, which very materially influenced our judgment. Palpable gall stones are exceedingly rare.

Moynihan states that he has palpated gall stones through the abdominal walls but once. In our case, in view of the history, it was thought that a friction rub consequent upon an old peritonitis could be eliminated. The diagnosis of gall stones was a poor one, and the correct diagnosis should have been made considering the history and size of the liver. A liver of this size with the symptoms presented is exceptional in gall stone disease. All of this, together with the absence of cachexia, jaundice, ascites, distended collateral circulation, and splenic enlargement, should have been sufficient to establish a diagnosis. This should have been confirmed by the fact that his double vision and his severe headaches were relieved by iodides, despite the fact that he denied lues. Under gas and ether, a 6-inch golf stick incision was made after "Kehr," and the liver exposed. A rapid survey of the gall bladder revealed the fact that it was empty and not enlarged. The liver was much enlarged, and extended to the navel. It was normal in appearance on its upper surface, but when the under surface was exposed, it was seen that the enlargement was due to a number of whitish nodules, of various sizes, which seemed to be confined to the under surface of the liver. There was no glandular infiltration, no cirrhosis, no splenic enlargement and no ascites present. All this was considered, and the conclusion was reached that we in all probability had a syphilitic liver to deal with. The cause of the crepitus proved to be a perihepatitis which had caused a large mass of fibrinous exudate to be deposited on the surface of the liver. There was also some roughuess of the parietal peritoneum, so that with each respiration this crepitus was produced. The abdomen was closed with considerable difficulty on account of the large size of the liver. Convalescence unimpeded.

Under mercurial injections and iodides, the liver has receded, so that it is almost normal in size, and all of the symptoms from which the patient has been suffering have subsided. The case was one of great interest and I shall be exceedingly cautious with the diagnosis the next time a similar case presents itself.

Mastoiditis.—Dr. M. W. Fredrick presented two patients on whom operations had been done for mastoid suppuration.

The first patient, a cook, aged 32, had had a tense, brawny, purplish and painful swelling which occupied the whole left side of the head and caused the ear to stand out at a right

angle. The hearing was good and the middle ear not involved. He was sent to the City and County Hospital for operation and an incision, necessarily deep on account of the great swelling, showed a carious spot at the tip of the mastoid. On going through this an abundance of pus escaped. The tip was filled with granulation and broken down tissue, and was therefore completely removed. Partial closure with drainage now completed the operation. The temperature, which had been 103° F., fell to normal in 24 hours, and the patient made an uneventful recovery. The second, a poorly nourished girl of 14, had been treated for ear trouble in the Polyclinic 3 years previously and had returned with middle ear full of granulations, hearing almost lost, and a soft fluctuating swelling behind the right ear. Patient was sent to the City and County Hospital and operated on by Dr. O. N. Taylor. A Whiting incision showed a discolored spot on the wall of the antrum through which pus was slowing oozing. The opening was enlarged, the antrum curetted and the posterior wall of the external auditory meatus was chiseled off, after having first passed a curved silver probe through the aditus ad antrum to protect the facial nerve. After cleaning out the attic and middle ear the wound was partially closed and drained, and the patient made a good recovery. The patients were shown to illustrate two extremes in mastoid work; the process in the first was acute and involved the mastoid tip only; that in the second was chronic and involved antrum, attic and middle ear, but not the tip. The major part of each operation was done with curette and rongeur.

Large Aneurysm of the Aorta; presented by Dr. J. Wilson Shiels.—W. H., male, age 47. Has always used tobacco and alcohol to excess. Had rheumatism and lues some 20 years ago. About 3 years ago caught cold and had a creaking cough and pain on right side of chest. Cough and pain increased in severity. He was in hospitals at various times, but condition did not change and of late his feet have become edematous. On physical examination he was found to have a tremendously large aneurysm of the ascending portion and arch of the aorta.

Carcinoma of the Liver.—Dr. J. Wilson Shiels and Dr. C. G. Levison presented a case of exploratory celiotomy for carcinoma of liver.

W. C., male; 50. Present illness: 2 months ago noticed pain in left side under lower rib radiating to front of abdomen; now is up to axilla; pain increased on activity; not aggravated by respiration; no cough. Patient says food seems to disagree, and few hours after taking fills up with gas, and pain results; is sometimes nauseated, but does not vomit; appetite fair; bowels not regular; at times has had clay-colored stools.

Two weeks ago jaundice occurred; never jaundiced before. Patient is well developed, fairly well nourished; pale, sallow and yellowish in color. Abdomen large, and tenderness marked over liver. On percussion, upper border of liver, dullness is found at 6th rib; lower border, 3 inches below costal margin; easily palpable, edge is hard, surface uneven. Urine, dark yellow, clear, 1.022, distinct cloud, albumen; no bile, and granular casts.

On examination of the abdomen there is seen a dome-like prominence, in the form of an arch, symmetrical and reaching downward to within 4½ cm. above the umbilicus; the skin over this area looking tense. There was edema of lower extremities and some ascites. A median abdominal section was made from sternum to umbilicus, and to facilitate inspection and palpation of under surface of the liver, the right rectus was severed from a little below the middle of the vertical incision. A large quantity of grumous fluid was evacuated from the abdominal cavity.

The liver and spleen were palpated, the former inspected. One large, hard nodule was to be seen and felt on the under surface of right lobe posteriorly, while several similar nodules were found in the left lobe on under surface. The spleen was displaced downward and posteriorly by the enlargement of the left lobe of the liver. The case was considered one of inoperable malignancy of the liver, and the abdomen was closed.

Intercostal Cardiac Murmurs; presented by Dr. Shiels.—P. B., age 22, male, admitted to the City and County Hospital last January, suffering from precordial pain, marked dyspnea, weakness and loss of appetite. Has had 4 attacks of rheumatism in 8 years, last being one month previous. He was found to have edema at base of both lungs, endocardial murmurs as well as a pericardial friction rub, Broadbent's sign and systolic retraction of interspaces. When first seen by Dr. Shiels in April, had no joint pains, but complained of persistent slight precordial distress. At this time pulse was 84, regular, moderate volume and tension not paradoxus; blood pressure slightly irregular but averaging 150. No Friedrich's sign. Bilateral Broadbent. Impulse of heart diffuse, heaving. Heart enlarged, the left border of cardiac dullness extending 3½ inches to the left of sternum. Change of position of the patient caused shifting of the area of cardiac dullness. Double murmurs are now audible over the whole precordia, while a diastolic murmur, of cardio-pulmonic origin, is best audible in the mid-axillary line. No friction rubs of pericardial origin are present. This case, apart from the number of interesting features presented by the murmurs of endocardial origin, showed how difficult it is at times to absolutely eliminate the possibility of the existence of pericardial adhesions in patients who are known to have had a fibrinous pericarditis.

Abscess of the Lung; presented by Drs. Shiels and Levison. V. P., male, age 43. Was admitted to Dr. Shiels' ward at the City and County Hospital on April 14th. He had some lung trouble of 2 weeks' duration, 3½ months previous to admission. Went back to work, but soon noticed dyspnea, palpitation and precordial pain. Spent 5 weeks in a hospital and 2 in the country, but he had now lost about 40 lbs., is orthopnoic, above symptoms being aggravated, and his lower extremities are dropsical. One brother died of tuberculosis. Patient denies lues. The physical examination revealed a most interesting condition of affairs. Very emaciated, cyanatic, pulse irregular in time and character. Heart is displaced downwards and outwards, the apex being in 7th interspace 16 c. m. to left of median line, the upper border being at the level of the 4th rib. There were also to be heard murmurs indicating a double mitral lesion. The left lung extends to 12th dorsal vertebra, lower border not moving with respiration, hyperesonant, with breath sounds of slightly diminished intensity. The right lung anteriorly is dull down to 3d rib, from 3d to 5th absolutely flat; 5th to 7th tympanitic where it runs into liver dullness. Posteriorly dullness throughout. Anteriorly breath sounds audible only as far down as 3d rib, harsh inspiration and prolonged expiration, and in axilla pleuritic friction sounds audible. Posteriorly bronchial breath sounds to 4th dorsal, with subcrepitant rales; below sounds are faintly heard; vocal fremitus and vocal resonance present over both lungs, and if at all diminished, it is especially over right lung.

Besides an enlarged and tender liver, there was marked edema of the extremities and some ascites. The X-ray revealed a dome-like shadow corresponding to the middle lobe of the right lung, which shadow could not be differentiated from the liver's. The blood gave a white count of 16,000; polymorphonuclears 81 per cent. The sputum was abundant and at times foul and purulent, at other times muco-purulent, but comparatively odorless. The diagnosis rested between abscess and bronchiectosis. At operation, Dr. Levison resected a piece of the 3d rib under Schleich anesthesia and evacuated a great quantity of pus containing a shred of lung tissue.

The autopsy revealed an abscess cavity which began as a bronchiectatic cavity in the middle lobe. The lower lobe was consolidated and pushed backwards. The upper lobe was pushed backwards against the spine. The right auricle was dilated sufficiently to admit a fist; the mitral orifice was stenosed and incompent. The cardiac muscle was very flabby. The gall bladder was dilated, full of bile and contained a few small stones, while the common duct was completely obstructed by a stone the size of a marble. The patient died of cardiac failure, which had been so marked that operation had once been postponed. It was especially gratifying to find the diagnosis completely substantiated by the postmortem findings, even though the size of the right auricle made us feel that bleeding him would have done him no harm had it been done at the proper time.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Arndt, Hugo R., from 372 Sutter st., to 701 Jas. Flood Bldg., San Francisco; hrs. 1:30-4 P. M.

Bahrenburg, Geo. E., from National Soldiers' Home, Los Angeles, to Sawtelle; hrs, 8-10 and 1-3 and 7-8.

Beckingsale, D. L., from Ontario, San Bernardino Co., to 322½ 3d st., San Francisco, Bogue, H. E., from Whittier to Soldiers' Home, Los Angeles Co. **Brennan, T. F.**, from Hearst Bldg. to 514 Mason st., San Francisco. **Burke, W. P.**, from San Francisco to Highland, San Bernardino Co.

Church, Benj. F., from 145 S. Broadway to 412 Grant Bldg., Los Angeles.

Dawson, Byron F., from Cayucas to 794 Higuera st., San Luis Obispo. Dickson, A. T., from 459 Bryant st., San Francisco, to Maywood, Victoria, B. C. **Durfee, R. B.**, from 647 S. Grand ave. to 307-8 Fay Bldg., Los Angeles.

Gillihan, Allen F., from 2221 Shattuck ave. to Shattuck ave. and Alston Way, Berkeley; hrs. 2-4. **Gleason, Chas. D.**, from German Hospital to St. Luke's Hospital, San Francisco.

Johnson, Walter S., from Eureka, Humboldt Co., to 409 Hearst Bldg., San Francisco.

Kjaerbye, C. P. H., from 2042 Mariposa st., to 102 Forsyth Bldg., Fresno, Cal.

Mayon, James L., from Macdonough Bldg., to Central Bank Bldg., Oakland; hrs. 10-11 and 2-4. **McAulay, Martin**, from San Mateo to Newman, Stanislaus Co.; hrs. 10-12 and 2-4. **McNaughton, J. A.**, from Blue Lake to Georgeson Bldg., Eureka, Humboldt Co.

Poaps, A. Perry, from 1144 McAllister st. to 1131 Laguna st., San Francisco; hrs. 2-6.

Reynolds, Harry B., from 751 Sutter st., to 1018 Sutter st., San Francisco. **Rowell, Hubert N.**, from 2146 Shattuck ave. to First National Bank Bldg., Berkeley.

Schwarz, Jacob, from Mt. Zion Hospital to Pavia Bldg., 643 Sutter st., San Francisco; hrs. 1-3 and 7-8. **Smith, Weston O.**, from 1361 Park st., to Putzman Blk., 1912 Encinal ave., Alameda. Strother, Wm. T., from Hollywood to Pasadena, Sta. A; hrs. 10-1 and 5-8:30.

Terrill, George M., from 121 Geary st. to 210 Powell st., San Francisco. **Tuggle, S. P.**, from 135 Geary st., to 419 California st., San Francisco. West, Joseph S., from Colusa to Tracy, San Joaquin Co.; hrs. 9-4. (Office practice only.)

New Names.

Berry, Andrew J., Copp Bldg., 218 S. Broadway, Los Angeles. Univ. of Louisville, Ky., '90; Barnes' Med. Coll., Mo., '97. (C) '01; hrs. 9-12 and 2-5 and 7-8.

Colburn, E. L., 305½ S. Spring st., Los Angeles. Hahn. Med. Coll., Chicago, Ill., '87 (C) '96. Hrs. 2-4 (ex. Sat.).

Lee, Belle M. 528 M. st., Kern, Kern Co. Coll. of Phys. and Surg., S. F., Calif., '98 (C) '99. Hrs. 9-11 and 2-4.

Linscott, Louise A., 1135 Polk st., San Francisco. Med. Dep. of U. C., '04 (C) '05. Hrs. 1-3.

Mulcahy, M. V., San Jose. Univ. of Toronto Med. Coll., '89 (C) '00. Hrs. 10-12 and 2-4 and 7-8.

Oldham, J. Y., Grant Bldg., Los Angeles. Kentucky School of Medicine, '85 (C) '05. Hrs. 10 A. M.-4 P. M.

Schlageter, Herman J., 1516 McAllister st., San Francisco Cooper Med. Coll., '95 (C) '95.

Wilson, Samuel G., 973 E. 21st st., Los Angeles. Jeff. Med. Coll., Pa., '73 (C) '88.

New Members.

Los Angeles—**Berry, Andrew J., Bryant, Allen L., Carter, M. D., Fisher, James F.**, and **Garcelon, Harris.**

San Bernardino—**Burke, W. P.**

San Francisco—**Schlageter, Herman J.**

Tuolumne—**Van Tassell, F. H.**

Deaths.

Belton, Wm. H., Colusa.

Luman, Franklin E., Colusa.

The A. M. A. Meeting.

"The all-absorbing topic of interest to the members and delegates seems to have been that of the character of advertisements in the *Journal of the American Medical Association*. For a long time, as is known, the Secretary-Editor was a notorious sinner in his readiness to accept the advertisements of proprietary remedies, and until the editor of the CALIFORNIA STATE JOURNAL OF MEDICINE began to hold him up to reprobation he seemed to be an incorrigible sinner. Finally, however, the latter's exhortations had the desired effect, and now there is apparently no more earnest advocate of publicity in drug manufacture than the editor of the *Association Journal*. His sudden conversion has quite overpowered the converters, however, and their joy at Portland was almost hysterical in its manifestation. The advocates of open formulæ are working for a laudable object, and we would welcome the day when all proprietary remedies should be as definite of composition and proportions as Dover's powder, the makers depending for success upon their skill in manufacture. There is, however, a wide difference, between a secret or semi-secret remedy advertised only to physicians, even though the makers are somewhat extravagant in their claims, and one that is advertised in the daily papers and palmed off upon the public on the strength of fraudulent certificates. To class the two together as nostrums or quack medicines is not the way to make converts to pharmaceutic righteousness."—*Medical Record*, July 15, 1905.

[The definition of "nostrum" is "a secret or quack remedy." Will the *Medical Record* be good enough to show just wherein is the "wide difference" between secret remedies advertised to physicians and similar things advertised to the laity, and why they should not all be classed as "nostrums"?—Ed.]

Sweeping the Sick-Room

While lecturing recently, a Chicago physician—and member of the School Board—declared the prevailing method of dry sweeping a prolific source of disease, due to the spreading of germ-laden dust. Dust, dirt and germs are best removed from floors by first sweeping with a cloth-covered broom, moistened with water containing just a little Platt's Chlorides.

Platt's Chlorides,

The Odorless Disinfectant

A colorless liquid, sold in quart bottles only. Manufactured by Henry B. Platt, N. Y.

FORMULA—A combination of the saturated solutions of Chloride Salts, proportioned as follows: Zn 10 per cent., Pb 20 per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent., K 5 per cent.

California State Journal of Medicine.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. III SEPTEMBER, 1905. No. 9

EDITORIAL NOTES.

A WORTHY EXAMINER.

The JOURNAL is advised that heretofore the examination in obstetrics, before the State Board of Medical Examiners, has been regarded by applicants as a "snap," for the reason that almost never was an applicant rejected for failure to pass in this subject. All previous examinations are reported to have been almost farcically easy, and the markings uncommonly high—high, it is said, regardless of the character of the replies elicited. But with the examination of August, after the organization of the new board, a change seems to have occurred. The Eclectic Medical Society of the state, at its last meeting, elected Dr. J. C. Bainbridge, of Santa Barbara, to serve upon the board for the ensuing year, and he naturally fell heir to the examination in obstetrics. It would appear that Dr. Bainbridge is a believer in the wisdom of the medical law, and also in the wisdom of rigid examinations, for he prepared a set of questions intended to test the knowledge of the applicants on the subject of obstetrics, and he marked the answers so closely that it was found, when the returns were canvassed by the board, that 39 out of 42 applicants had fallen below the minimum 50%! As the names were as yet unknown, under the rules of the board a review was called for, and a more liberal marking permitted the passage of some 4 or 5 more candidates. It is said that some members of the board took Dr. Bainbridge to task, alleging that he had asked too difficult questions, and that after he had quietly listened to such complaints, he informed the complaining members that his questions were taken from some previously asked by the examining boards of New York and New Jersey! This only substantiates what the JOURNAL has already called attention to—that the standards in California are distinctly lower than those in Eastern states; apparently Dr. Bainbridge, for one, is intent upon remedying this difficulty. We congratulate the board upon the acquisition of so excellent a member, and the Eclectic Society upon so good a representative. The report of the examinations for July and August will be found elsewhere in this issue of the JOURNAL.

MEDICAL FRAUDS.

It may be remembered that some months ago the JOURNAL referred to the fact that an unlicensed physician named H. C. Neff was sending out circulars, apparently emanating from the "Specialists Formula Co.," offering to impart certain wonderfully valuable information—for the small sum of $10.00, cash in advance. As soon as the matter came to our attention, the Postoffice authorities were notified, for the circular bore all the earmarks of fraud. It is a pleasure to note with what promptness the case was taken up by the proper department. The San Francisco papers of the 12th of August printed a telegram dated Washington, to the effect that a "fraud order" had been issued against this "Company." We understand that the Postoffice authorities are only too glad to be informed of these fraudulent enterprises, and to put a stop to them; but unless the facts are presented to the proper officials, the frauds go on unrecognized. Members should bear this in mind, and advise the JOURNAL office promptly when they receive circulars or pamphlets that appear to be "off color." As a general principle it may be accepted that any sort of proposition which invites you to send money in advance in order to secure something very valuable but of a not very definite nature, is presumably fraudulent.

MEDICAL JOURNALS.

On another page we take pleasure in reprinting an editorial note from a recent number of *American Medicine,* in which is put very clearly and forcefully the issue presented to all medical journals by the formation of the Council on Pharmacy and Chemistry of the A. M. A. The JOURNAL commends a careful reading of this, and then a careful perusal of the advertising pages of the various medical journals which may come to your notice. You need not bother to look through the *New York Medical Journal,* for it has already declared itself as being allied with the nostrum interests; physicians with ethical feelings and decent instincts may "go hang"; "the nostrum manufacturer has a secret which is worth money—to him; he pays money to advertise his nostrum; we are in business for money; therefore it is right for him to exploit the medical profession and for us to help him—for he pays us well;" that's about the

line of argument. If one reads the editorial note in *American Medicine* (on the title page we read that it is "Founded, Owned and Controlled by the Medical Profession of America"), and then takes the trouble to look carefully through its advertising pages, one cannot help but blush for the "Medical Profession of America," and believe that *American Medicine* is one of the journals published for "private profit," and not for the "profession." Amongst other highly edifying and improving things, one finds that "The family laxative, California Fig Syrup," is presented to "the medical profession of America"; sal-codeia (one of the numerous acetanilid mixtures); ergoapiol; bovinine; Hayden's Viburnum compound; antiphlogistine; tongaline; labordine; eusoma; anasarcine (stated to be a "cure for dropsy"—recommended by "the medical profession of America" to thinking medical men as "a cure for dropsy"!); Peacock's bromides; seng; chionia, etc., *ad nauseam,* are also promoted by *American Medicine.* One is almost speechless at the contemplation of such hypocrisy, and, if he thinks at all, must ask himself whether this is not one huge confidence game! To make such a high-minded statement editorially—and to hand to its readers such detestable advertising pages, seems almost incredible. We humbly suggest to *American Medicine* that it change the line under its title to read: "Founded by the Medical Profession; Owned and Controlled by the Nostrum Manufacturers of America."

BEWARE OF FAKES.

Doubtless because of the fact that, in forceful but rather inelegant language, "there is a sucker born every minute," there seems to be born almost as frequently some fake scheme for separating the "sucker" from his coin. One of the very rawest of the new ones comes to the JOURNAL office in the guise of what looks like a circular periodical on "iridium (medicinal); for the first time in the medical history of the world * * * discovered, introduced and clinically perfected from the laboratory of this company"—the "Platinum Co., of America." The pamphlet is an astonishing collection of statements, which it seems almost unbelievable that a thinking man, and especially a physician, could accept as anything more than a huge joke. But we are advised that some men have been so thoughtless as to contribute to the exchequer of this "Company," and hence this word of warning. Amongst other highly entertaining things, the pamphlet says, under the caption of "Proven Facts": "Medicinal iridium is death to uric acid, all forms of syphilitic disease, rheumatism, Bright's disease, diabetes, all forms of stomach troubles, cancer, epilepsy, etc." Needless to say, the "Company" does business only on a cash-in-advance basis, and does not send out samples or accept personal checks. It is good enough to offer to send 60 grains of this marvelous material to anyone who will send $5.00 cash with the order. These fakes must pay or they would not exist; only one deduction is possible—some medical men must be just about the easiest of all "easy things."

AN OFFICIAL DOCUMENT.

"Changes in the Pharmacopeia of the United States" is the title of a work just issued in pamphlet form by the P. H. and M. H. Service, and it is a monograph which should be in the hands of every practitioner of medicine. The introduction states that "the medical profession as a whole can scarcely be said to give the publication the support that it deserves; physicians often prescribe proprietary drugs or articles under commercial names when a greater familiarity with the Pharmacopeia would show that there are official preparations of similar character but of more uniform composition." Let us consider one example, at the present time. There are upon the market a number of preparations, each with its own fanciful name, which are generally supposed to be about a 50% solution of cresol in linseed oil soft soap. Of these we may note *lysol, creolin, disinfectol, entero-cresol, germol, cresolin, lysitol,* etc. The Pharmacopeia gives us Liquor Cresolis Compositus, and defines its standard of purity and strength. Now just stop for a moment and think about this. In the first place, if you prescribe any one of these commercial preparations—as for instance *lysol*—you have no assurance whatsoever of what you will be forcing your patient to use. It may contain some cresol to-day and none to-morrow, for there is nothing to compel the manufacturer to put any special thing into the preparation he calls lysol. He may bottle up coal oil and label it "lysol," if he so chooses. If the price of cresol goes up, he may reduce the amount which he puts into his preparation. In other words, you are ordering a name and nothing else; a name with nothing to assure you of the nature or composition or permanence of composition, of the thing so designated. Now consider another point: Suppose a community having seven physicians, each one of whom has been approached by a representative of one of the houses manufacturing the preparations named, and has been convinced that one only of the preparations is the real "Simon-pure-best" and that the others are—to put it mildly—not so good. (This is nearly always the case; *each* brand is emphatically "the best ever.") As a result, each one of these seven men is ordering a different brand of what is practically the same thing, and the pharmacist is forced to keep seven brands, and to spend seven times the necessary amount of money—why? Simply because of the inexcusable ignorance of these seven physicians! The Pharmacopeia gives one single standard preparation; it defines the strength and the mode of manufacture; it makes the pharmacist responsible for this standard; it guarantees that the patient will always receive the same thing; it insures that the physician shall know exactly what he is prescribing and what the patient is using; it relieves

the pharmacist of the unreasonable and unjust burden which has been placed upon him through the ignorance of the physician, and it places upon him the responsibility which is rightly his. Just stop in your busy life, for a moment, and think of this. It is not a fanciful sketch, but an actual occurrence, and only one of hundreds which might be cited. Will you order some preparation of this sort under a trade name that gives you no assurance of what the patient will receive, or will you hark back to the Pharmacopeia of the United States and order Liquor Cresolis Compositus, knowing exactly what you are doing, and what your patient will receive—or where to place the blame if he does not receive exactly what you have ordered?

YELLOW FEVER.

Sad as are the immediate consequences, the present epidemic of yellow fever in New Orleans will be of inestimable benefit to the world. Many physicians and sanitarians throughout the South have refused to accept the theory, apparently well demonstrated, that the *Stegomyia* is the intermediate host and the only means of conveyance of the disease. It is true that the actual cause of the disease has not been demonstrated under the microscope, but certainly no chain of circumstantial evidence and corroborative testimony was ever stronger. In New Orleans, due to carelessness, ignorance or lack of common intelligence, several foci had been established before the presence of yellow fever was generally known and any efforts had been made to grapple with the epidemic. As a result, something like a thousand cases have occurred, and some two hundred deaths have resulted. Ludicrously rigid quarantine has been established by neighboring states, and the panic at one time threatened to become serious. The reports that reach us indicate a commendable promptness on the part of the Marine Hospital Service in taking hold of the situation, and an equally satisfactory yielding of the local health authorities to the command of the service. It is high time that all epidemics of infectious diseases should be promptly turned over to the Public Health and Marine Hospital Service, and full control of all local affairs placed in the hands of that excellent department of the federal government. An epidemic of yellow fever is not a local concern; it is a matter of national import, and as such should properly be under the full control of the national government. The truth or falsity of the mosquito theory of the dissemination of yellow fever will be made manifest, in all probability, to the most dense, by the time that the present epidemic in New Orleans is stamped out. In Cuba, Wood and the yellow fever commission showed what could be done against the disease when the sanitary efforts of the health officers were based upon the mosquito theory, and we may confidently expect to see very much the same general result in New Orleans, now that the Marine Hospital Service is in full charge.

UNFORTUNATE COMPLICATION.

The question of a new City and County Hospital for San Francisco is in an exceedingly unfortunate condition, and should receive the attention of all physicians in that community, and also of all the various organizations of business men and labor unions. It will be recalled that a resolution of the Board of Supervisors authorized a general vote on the issuance of bonds to cover the cost of a new hospital. The election was held and the bond issue authorized. The unfortunate part of the transaction is that, through some inadvertence, the original resolution of the Supervisors contained a statement that the new hospital should be erected on the Almshouse tract. This suggested location is an exceedingly bad one, for it is remote, rather inaccessible, and very cold and windy. The unfortunates who must be placed in the city's hospital are generally in bad condition, and to require that they be transported a considerable and an unnecessary distance is certainly ill advised, to say the least. It would also be very detrimental to convalescing patients to expose them to the almost continuous winds and heavy fogs to which the Almshouse tract is almost constantly exposed. This is a question that appeals not at all to the rich, but only to the proletariat, and hence should appeal to the great majority of voters. The physicians, not alone of San Francisco, but of the whole state, should be interested in seeing that the questions at issue be properly understood, and that so serious an error be avoided, even if it shall require that the bond issue be once more referred to the voters of the community.

DO NOT FORGET.

On the first day of this month of September, the Eighth Decennial Revision of the United States Pharmacopeia becomes the official standard of the United States and of something like one-half of the states in the Union. The Revision Committee, consisting of some of the ablest physicians, pharmacists and chemists in this country, has spent five years working upon the present volume, and the result of their efforts is in the highest degree commendable. It is well within moderation to say that every conscientious physician should have a copy of this book upon his desk; it should be to him the Bible and the prayer book of his professional life; if, in prescribing for the sick he restricts himself to those articles which are contained in the Pharmacopeia, he will protect himself, his patient and his pharmacist, and it is safe to say that no patient of his will have suffered for lack of the proper remedy. With the exception of a very few articles—mostly chemicals so recently patented that they could not, under the rules of the Convention of 1900, be included in the present work—the conscientious physician will not have to go outside of the Pharmacopeia to find all the remedies which he may need. The standards of purity, quality and strength of pharmacopeial preparations are fixed

by law, and if the pharmacist supplies such preparations of other standards, he becomes liable to the law for his misconduct. Thus is the patient protected from the greed of the manufacturer. If you prescribe some unofficial preparation, something not in the Pharmacopeia, you have absolutely no assurance of what your patient will ingest. It is said that a large proportion of physicians have never seen the Pharmacopeia, never have used it, never were taught anything about it. At a banquet not long ago a recent graduate of a prominent medical school stated that materia medica and therapeutics had not been taught in his school for several years! No wonder the pharmacist's shelves are loaded with nostrums and reduplicated preparations each with a still more fanciful name, and his prescription files with so-called "prescriptions" for preparations of unknown value or composition! Is it not time, gentlemen of the medical profession, that we should study a little of the Pharmacopeia and teach ourselves a little of what we should know? Or shall we continue forever to "learn" our therapeutics from the smooth-tongued detail man of the nostrum manufacturer? Remember that important changes in the strength of some of the common and generally used drugs have been made; see the table on page 274.

THE X-RAY IN CANCER.

Sufficient time has now elapsed for us to take a relatively broad view of the results obtained in the treatment of malignant growths to X-ray exposures. Dr. Wm. B. Coley, of New York, presents a very full statement of his experiences in the treatment of 167 conditions of malignancy by this means, in the *Annals of Surgery* for August. Coley refers to his statements made at the time when this procedure was first suggested, and says, "I then believed, and have since maintained, that the treatment should be strictly limited to inoperable and recurrent cancer, or applied as a postoperative measure that might possibly render recurrences less likely to take place." The whole paper is interesting, and his conclusions seem to be sound and conservative. "The use of the X-ray as a preoperative measure in other than cutaneous cancer is contraindicated, 1, because the agent has not yet been proven to be curative; 2, because of serious risks of an extension of the disease to inaccessible glands or to other regions by metastases during the period required for a trial of the X-ray."

TUBERCULOSIS NOTIFICATION.

Your attention is particularly called to a special report from the Tuberculosis Committee of the State Society on page 294, relating to the subject of notification. At the last meeting of the society, at Riverside, this question was brought up and passed to the Council. The Council instructed the secretary to request the opinions of the various component societies, and to report them to the Council when secured. In view of these facts it would seem well for all county societies to consider carefully the special report herewith published, and to adopt resolutions along the lines indicated, if such action shall seem wise after due deliberation. It must be remembered that the Tuberculosis Committee has given this matter very careful thought; it has been in existence now for nearly three years, and has studied these matters with great attention to present conditions and probable results, and consequently the suggestions of the committee should not be lightly cast aside or neglected. The statements which they make are moderate and sensible, and doubtless if it shall be the wish of the component societies that their recommendations be concurred in, considerable good will result. It is strongly urged, for the sake of uniformity, that if the attitude of the committee is supported by component societies, that all resolutions passed be more or less in conformity with the suggestions of the report.

THE COURSE OF PROPRIETARIES.

Practically all the so-called "patent medicines"—by which is really meant the nostrums advertised and sold directly to the laity—were originally "proprietaries" introduced through the kindly offices of the medical profession and later given directly to the public. Most of those at present in vogue with the medical profession will undoubtedly take the same course in due time. Ask any pharmacist what will eventually happen if you give a patient a prescription for one of these "proprietaries" (really nostrums), say pepto-mangan, bovinine, sanmetto, tongaline, seng, etc. He will tell you that in due course the patient, or his wife, or his mother, or his children, or his sisters, or his cousins, or his aunts, or his wife's friends will come into the store and buy some more of the same stuff—but without a prescription. In other words, you have lost a patient, and you have helped to induce some one or more persons to become self-dosers. Sooner or later mostly all of this class of nostrums will be sold—and probably advertised—directly to the laity. Already this is the case with a number, notably antikamnia, and we frequently see a drug store window decorated with bottles of peptomangan, Fellow's syrup, etc., at special cut rates. Some months ago the "bovinine" concern wrote to the JOURNAL in high indignation because we had stated that they appealed to the laity direct. We have recently received some copies of a paper printed, apparently, at Athol, Mass., and entitled "The Healthy Home." In this journal, which, from its general appearance, seems to be intended to aid the layman in prescribing for himself, we read the following interesting advertisement: "Bovinine makes rosy-cheeked children. It brings bloom to pale faces, flesh to thin bodies. * * * *Your physician will heartily endorse it. Every druggist sells it.* The Bovinine Company, New York." The words in italic clearly indicate that this advertisement is not intended for the phy-

sician's perusal. Do you see the lovely gold brick? Some woman sees this advertisement; she is a bit skeptical; she asks the druggist, "Do physicians prescribe this?"; the druggist says that some do; she then concludes that she will save her doctor's fee and give "bovinine" to the ailing child at home, with the result that some serious condition, mayhap, goes on unrecognized and untreated till all chance of recovery is lost. And yet scores of supposedly decent medical journals are advertising this very same stuff—bovinine—whatever it may be or contain—and among them are: *American Medicine; Medical Record;* the official journals of the state medical societies of *Wisconsin* and *Maryland,* and possibly others; *Cleveland Medical Journal; St. Paul Medical Journal,* "Edited and published by the Ramsey County Medical Society." Is it not astonishing that the medical profession will continue to extend with one hand and accept with the other "gold bricks" like this? To bunco one's own self! It seems almost too ridiculous to be true!

STATE JOURNALS.

Four more state medical organizations have started medical journals as the medium of publication of their transactions, and one, Maryland, has made an existing journal its official publication. Texas, Ohio, South Carolina and New Mexico are the states to begin the publication of new journals, and we certainly wish them the very best of success and long and useful lives. The acceptance of the journal idea by comparatively small organizations, such as South Carolina and New Mexico, is very suggestive, and is a lesson to some of the larger organizations which as yet are undecided. The fact that the members of a society can in this manner be reached every month in the year, and not merely once a year, at the annual meetings, is undoubtedly one of the strongest arguments in favor of the state organization journal. The action of the A. M. A. in establishing the Council on Pharmacy and Chemistry furnishes a good and safe guide for the benefit of those who have charge of the business management of state medical association journals, and there seems little reason to doubt that they can come together on a common ground and effect an organization of state medical journals that will be of great usefulness and advantage to all. The four new journals have started right, and there is no reason why, under the advice of the Council, they should not continue right; we believe that they will, and we certainly wish them well.

THE LANE LECTURES.

The institution of annual courses of lectures to be given by men who have shown themselves to be masters in their particular branch of medicine is one to be commended, for a variety of reasons. No one of experience will deny that the spoken word will produce effects which the written word will not produce. We may read the words of a man for years and profit greatly by them, and yet be in the dark concerning much of their meaning. Books, especially text-books, are seldom italicized, and the lecture italicizes the work in terms of the personality of the lecturer. This is not only of value in separating the important from the unimportant, a thing that young students especially are often unable to satisfactorily do, it also serves to bring before us the personality of the lecturer, to communicate, to some at any rate, a share of his enthusiasm, and to illuminate by verbal interpolations or case experiences what would perhaps be passages doubtful in interpretation. One thing is certain in connection with this particular course of lectures, and that is that those of us who read in future the writings of Sir Patrick Manson will do so with greatly added enthusiasm, and doubtless with greatly added insight.

If any one thing in Dr. Manson's general plan of considering his subject was apparent from the first, it was the breadth of his point of view. The lectures were no narrow recital of bare facts and naked truths, but were decently clothed in an atmosphere in which the prominent constituents were broad knowledge of biologic principles, wide experience, and that logical imaginativeness so necessary to the scientific investigator. This was nowhere more apparent than in his opening lecture in which, with great simplicity and directness, he formulated the principles underlying the distribution of disease in the tropics. Comparing the distribution of the ordinary flora and fauna with that of the microscopic flora and fauna, he showed that the former must vary because of the differences in climate, whilst the latter shows much less variation because man, with his relatively unvarying characteristics in different parts of the world, is their normal habitat. The variation in diseases in different climates is, therefore, in the main dependent on conditions affecting the disease parasites during the intermediate stage in which they are passing or being carried from one human host to another. This idea, one of the most important advanced, was illustrated in a general way, and by the citation of specific diseases. It was shown, for example, that certain diseases could occur only in the tropics because the necessary temperature and moisture could not be found elsewhere. Tinea imbricata and Pinta were cited as examples, these being diseases of the skin in which the parasite is directly in contact with the surrounding air, and dependent on a proper condition of this for life. Again it was shown that many tropical diseases could be introduced into temperate climates, but could not spread, usually because the conditions necessary for certain phases in the life history of

their parasites outside the human body were not present. For example, the parasite might have to undergo development in soil at a certain temperature before it could become infective, and, if these temperature conditions were lacking, would naturally die out. Or, on the other hand, the parasite might need to develop in certain tropical animals before it could become infective, and in the absence of these animals would be non-transmissable. Again, certain insects might be needed to remove the parasite from the body, serve as its pabulum for development, and later transmit it to man again. These and other points were abundantly illustrated by concrete examples of disease illustrated by excellent photomicrographs.

Regarding specific diseases, so much of value was brought forward that it will be possible merely to touch on certain points of major importance. Uncinariasis was clearly discussed, and its pernicious effects on an infected territory graphically described. The danger of its spread in this country was called attention to, a danger which we in California cannot blink at, as we have had more imported cases than any other state, judging from the literature. Dr. Manson's advice to examine the feces in every case of obscure anemia resisting ordinary treatment cannot be too strongly or too often reiterated. Parasitic hemoptysis due to infection with the lung fluke was described in one of the early lectures, and here again it was shown that this disease is likely to appear in the United States, the parasite having already been found in the lower animals. In California, with our large Chinese and Japanese population, we may expect to see the disease at an early date, as the local conditions for its spread are probably more favorable than anywhere else in the United States. The importance of the Schistosomum group of parasites, the cause of Bilharziasis, to this state is also to be considered. The rectal form of this disease has already been described in Porto Ricans in this city, and as these people are not particularly cleanly in their habits, and the conditions for transmission may be present here, the local profession should be sharply on the lookout. Filariasis is also very common in Porto Ricans, and has been seen here, and as the Culex mosquito is a widely distributed one, it would seem that the danger from this disease is far from being an imaginary one. The consideration of malaria (and Sir Patrick evidently found out that we had malaria in California) was practical and clear. The most important diagnostic points were stated to be, the periodicity of the attack, the blood examination, and the therapeutic test. We were glad to hear Dr. Manson reiterate what Osler preached for years to Eastern physicians, that if a fever did not respond to quinine it was not malaria. As Sir Patrick put it, if the fever failed to respond, the trouble was not with the drug or the patient, but with the diagnosis. The remarks on the diagnosis of abscess of the liver, which the lecturer prefaced by an apology for invading the field of surgery, were practical in the extreme, and well worthy of attention, coming as they do from one with such vast experience. They well emphasized the necessity for careful diagnosis, and consistent faith in the diagnosis when once carefully made. No one, unless convinced of the correctness of his diagnosis, would feel like persisting in the pincushioning of the liver advocated by the lecturer.

The general impression of all who attended these lectures was favorable in the extreme. We came away from them with the feeling that we had learned something. We felt that the subject was being handled by a master, and we were willingly hypnotized by the charm of Sir Patrick Manson's personality, and his slight but delightful brogue. We hope that in future years, as in the past, the Lane Lectures may continue to be a source of instruction and of inspiration to the physicians of the Pacific Coast.

Very Important Changes.

The following table gives some of the more important changes in the strength of pharmacopeial preparations. **Those in the second column are in force and effect on and after the first day of September of this year.** It is to be particularly noted that the strength of tincture of aconite is less than one-third the old strength, tincture of belladonna is less than two-thirds the old strength, whereas the tinctures of cantharides and of capsicum are double the former strength; tincture of digitalis is only two-thirds, and tincture of veratrum is but one-quarter its former strength.

English Title.	Pharm. 1890. Per Cent.	Present Strength. Per Cent.
Solution of Ferric Chloride	37.8	29
" " " Sulphate	28.7	36
" " Iron and Ammonium Acetate	2	2
Opium, granulated	13–15	12–12.5
" powdered	13–15	12–12.5
Syrup of Ferrous Iodide	10	5
Tincture of Aconite	35	10
" " Belladonna Leaves	15	10
" " Cantharides	5	10
" " Capsicum	5	10
" " Colchicum Seed	15	10
" " Digitalis	15	10
" " Gelsemium	15	10
" " Hyoscyamus	15	10
" " Indian Cannabis	15	10
" " Lobelia	20	10
" " Nux Vomica ..... total alkaloids	0.3	....strychnine 0.1
" " Opium	1.3–1.5	1.20–1.25
" " " deodorized	1.3–1.5	1.20–1.25
" " Physostigma	15	10
" " Rhubarb	10	20
" " Sanguinaria	15	10
" " Squill	15	10
" " Stramonium	15	10
" " Strophanthus	5	10
" " Veratrum	40	10

Reception to Dr. Musser.

Mr. H. H. Bancroft gave a very delightful smoker to Dr. John H. Musser, of Philadelphia, at the St. Dunstan's, on the evening of Saturday, August 19th, It was largely attended by San Francisco physicians, and the royal hospitality of Mr. Bancroft was highly appreciated.

UNITY, PEACE AND CONCORD.*

Abstract of a Farewell Address to the Medical Profession of the United States.

By WILLIAM OSLER, M. D.

On this occasion I have had no difficulty in selecting a subject on which to address you. Surely the hour is not for the head but for the heart, out of the abundance of which I may be able to express, however feebly, my gratitude for the many kindnesses I have received from the profession of this country during the past twenty-one years, and from you, my dear colleagues of this state and city, during the sixteen years I have dwelt among you. Truly I can say that I have lived my life in our beloved profession—perhaps too much! but whatever success I have had has come directly through it, and my devotion is only natural. Few men have had more from their colleagues than has fallen to my lot. * * *

I have studied to be quiet and to do my own business, and to walk honestly toward them that are without, and one of my chief pleasures has been to work among you as a friend, sharing actively in your manifold labors. But when to the sessions of sweet, silent thought I summon up the past, not what I have done, but the many things I have left undone, the opportunities I have neglected, the battles I have shirked, the precious hours I have wasted—these rise up in judgment. * * *

Nothing in life is more glaring than the contrast between possibilities and actualities, between the ideal and the real. By the ordinary mortal, idealists are regarded as vague dreamers, striving after the impossible, but in the history of the world how often have they gradually molded to their will conditions the most adverse and hopeless! They alone furnish the *Geist* that finally animates the entire body and makes possible reforms, and even resolutions. Imponderable, impalpable, more often part of the moral than of the intellectual equipment, are the subtle qualities so hard to define, yet so potent in every-day life by which these fervent souls keep alive in us the reality of the ideal. Even in a lost cause, with aspirations utterly futile, they refuse to acknowledge defeat, and, still nursing an unconquerable hope, send up the prayer of faith in the face of a scoffing world. Most characteristic of aspirations of this class is the petition of the Litany in which we pray that to the nations may be given "unity, peace and concord." Century after century from the altars of Christendom this most beautiful of all prayers has risen from lips of men and women, from the loyal souls who have refused to recognize its hopelessness, with the war drums ever sounding in their ears. The desire for unity, the wish for peace, the longing for concord, deeply implanted in the human heart, have stirred the most powerful emotions of the race, and have been responsible for some of its noblest actions. It is but a sentiment, you may say; but is not the world ruled by feeling and by passion? What but a strong sentiment baptized this nation in blood, and what but sentiment, the deep-rooted affection for country which is so firmly implanted in the hearts of all Americans, gives to these states to-day unity, peace and concord? As with the nations at large, so with the nation in particular; as with people, so with individuals, and as with our profession, so with its members, this fine old prayer for unity, peace and concord, if in our hearts as well as on our lips, may help us to realize its aspirations. What some of its lessons may be to us will be the subject of my address.

Unity.

Medicine is the only world-wide profession, following everywhere the same methods, actuated by the same ambitions and pursuing the same ends. This homogeneity, its most characteristic feature, is not shared by the law and not by the church, certainly not in the same degree. * * * There is a unity, too, in its aims—the prevention of diseases by discovering their causes, and the cure and relief of sickness and suffering. In a little more than a century a united profession working in many lands has done more for the race than has ever before been accomplished by any other body of men. So great have been these gifts that we have almost lost our appreciation of them. Vaccination, sanitation, anesthesia, antiseptic surgery, the new science of bacteriology, and the new art in therapeutics have effected a revolution in our civilization to which only can be compared the extraordinary progress in the mechanical arts. * * *

One often hears as a reproach that more has been done in the prevention than in the cure of disease. It is true, but this second part of our labors has also made enormous progress. We recognize to-day the limitations of the art, we know better the diseases curable by medicine, and those which yield to exercise and fresh air; we have learned to realize the intricacy of the processes of disease, and have refused to deceive ourselves with half knowledge, preferring to wait for the day instead of groping blindly in the dark or losing our way in the twilight. The list of diseases which we can positively cure is an ever-increasing one, the number of diseases the course of which we can modify favorably is a growing one; the number of incurable diseases (which is large, and which will probably always be large) is diminishing—so that in this second point we may feel that not only is the work already done of the greatest importance, but that we are on the right path, and year by year as we know disease better we shall be able to treat it more successfully. * * *

A powerful stimulus in promoting this wide organic unity is our great international gatherings, not so much the international congress of the profession, which has proved rather an unwieldy body, but of the special societies which are rapidly denationalizing science. * * * It should be a source of special pride to American physicians to feel that the national association of this country—the American Medical Association—has become one of the largest and most influential bodies of the kind in the world. We cannot be too grateful to men who have controlled its course during the past ten years. The reorganization so efficiently carried out has necessitated a readjustment of the machinery of the state societies, and it is satisfactory to know that this meeting of our state society, the first held under the new conditions, has proved so satisfactory. But in the whole scheme of readjustment nothing commands our sympathy and co-operation more than the making of the county societies the materials out of which the state and national associations are built. * * *

In this country reciprocity between the state licensing boards remains one of the most urgent local needs. Given similar requirements, and examinations practically of the same character, with evidence of good character, the state board should be given power to register a man on payment of the usual fee. It is preposterous to restrict in his own country, as is now done, a physician's liberty. * * * International reciprocity is another question of equal importance, but surrounded with greater difficulties, and, though a long way off, it will come within this century.

The second urgent need is a consolidation of many of our medical schools. Within the past twenty-five years conditions have so changed that the tax on the men in charge of the unendowed schools has become even more burdensome. In the old days of a faculty with seven professors, a school with 300 students was a good property, paying large salaries, but the introduction of laboratory and practical teaching has so increased the expenses that very little is now left for distribution at the end of the year. The students' fees have not increased proportionately, and only the self-sacrifice and devotion of men who ungrudgingly give their time, and often their means, save a hopeless

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situation. A fusion of the schools is the natural solution of the problem. * * *

And the third desideratum is the recognition of our homeopathic brethren that the door is open. It is too late in this day of scientific medicine to prattle of such antique nonsense as is indicated in the "pathies." We have long got past the stage when any "system" can satisfy a rational practitioner, long past the time when a difference of belief in the action of drugs—the most uncertain element in our art!—should be allowed to separate men with the same noble traditions, the same hopes, the same aims and ambitions. It is not as if our homeopathic brothers were asleep—far from it—they are awake—many of them, at any rate—to the importance of the scientific study of disease, and all of them must realize the anomaly of their position. It is distressing to think that so many good men live isolated, in a measure, from the great body of the profession. The original grievous mistake was ours—to quarrel with our brothers over infinitesimals was a most unwise and stupid thing to do. That we quarrel with them now is solely on account of the old Shibboleth under which they practice. Homeopathy is as inconsistent with the new medicine as is the old-fashioned polypharmacy, to the death destruction of which it contributed so much. The rent in the robe of Aesculapius, wider in this country than elsewhere, could be repaired by mutual concessions—on the one hand by the abandonment of special designations, and, on the other, by an intelligent toleration of therapeutic vagaries which in all ages have beset the profession, but which have been mere flies on the wheels of progress.

Peace.

The physician, like the Christian, has three great foes—ignorance, which is sin; apathy, which is the world, and vice, which is the devil. * * * Education of the public of a much more systematic and active kind is needed. The congress on quackery, which is announced to take place in Paris, with some twenty-five subjects for discussion, indicates one important method of dealing with the problem. The remarkable exhibit held last year in Germany of everything relating to quacks and charlatans did an immense good in calling attention to the colossal nature of the evil. A permanent museum of this sort might well be organized in Washington in connection with the Department of Hygiene. * * * One effective measure is enforced in Germany. Any proprietary medicine sold to the public must be submitted to a government analyst, who prepares a statement (as to its composition, the price of its ingredients, etc.), which is published at the cost of the owner of the supposed remedy in a certain number of the daily and weekly papers.

By far the most dangerous foe we have to fight is apathy—indifference from whatever cause, not from a lack of knowledge, but from carelessness, from absorption in other pursuits, from a contempt bred of self-satisfaction. Fully 25 per cent of the deaths in the community are due to this accursed apathy, fostering a human inefficiency, and which goes far to counterbalance the extraordinary achievements of the past century. * * * Western civilization has been born of knowledge won by hard, honest sweat of body and brain, but in many of the most important relations of life we have failed to make that knowledge effective. And strange irony of life, the lesson of human efficiency, is being taught us by one of the little nations of the earth, which has so far bettered our instruction that we must again turn eastward for wisdom. * * *

Against our third great foe, vice in all its forms, we have to wage an incessant warfare, which is not less vigorous because of the quiet, silent kind. Better than anyone else the physician can say the word in season to the immoral, to the intemperate, to the uncharitable in word and deed. * * *

Concord.

Unity promotes concord—community of interests, the same aims, the same objects give, if anything can, a feeling of comradeship, and the active co-operation of many men, while it favors friction, lessens the chances of misunderstanding and ill will. One of the most gratifying features of our professional life is the good feeling which prevails between the various sections of the country. * * * Men will tell you that commercialism is rife, that the charlatan and the humbug were never so much in evidence, and that in our ethical standards there has been a steady declension. These are the Elijahs who are always ready to pour out their complaints, mourning that they are not better than their fathers. Few men have had more favorable opportunities than I have had to gauge the actual conditions in professional private life, in the schools and in the medical societies, and as I have seen them in the past twenty years I am filled with thankfulness for the present and with hope for the future. The little rift within the lute is the absence in many places of that cordial professional harmony which should exist among us. * * * I am sorry to say the professors have often been the worst offenders, and the rivalry between medical schools has not always been friendly and courteous. * * * It makes a very bad impression on the public, and is often a serious stumbling block in the way of progress. Only the other day I had a letter from a most intelligent and appreciative layman who was interested in a large hospital scheme about which I had been consulted. I quote this sentence from it in sorrow, and I do so because it is written by a strong personal friend of the profession, a man who has had long and varied experience with us: "I may say to you that one of the distressing bewilderments of the layman who only desires the working out of a broad plan is the extraordinary bitterness of professional jealousy between not only the school men and non-school men themselves, and the reflections which are cast on one another as belonging to that clique, which makes it exceedingly difficult for the layman to understand what way there is out of these squabbles."

The national and special societies, and particularly the American Medical Association, have brought men together and have taught them to know each other and to appreciate the good points which at home may have been overlooked. * * *

So far as my observation goes, there are three chief causes for the quarrels of doctors. The first is the lack of proper friendly intercourse by which alone we can know each other. It is the duty of the older man to look on the younger one who settles near him, not as a rival, but as a son. He will do to you just what you did to the old practitioner, when, as a young man, you started—get a good many of your cases; but if you have the sense to realize that this is inevitable, unavoidable, and the way of the world, and if you have the sense to talk over, in a friendly way, the first delicate situation that arises, the difficulties will disappear and recurrences may be made impossible. The young men should be tender with the sensibilities of their seniors, deferring to their judgment and taking counsel with them. If young graduates could be taken more frequently as assistants or partners, the work of the profession would be much lightened, and it would promote amity and good fellowship. * * * After all, the attitude of mind is the all-important factor in the promotion of concord. * * *

The second great cause is one over which we have direct control. The most widespread, the most pernicious of all vices, equal in its disastrous effects to impurity, much more disastrous often than intemperance, because destructive of all mental and moral nobility, as are the others of bodily health, is uncharitableness—the most prevalent of modern sins, peculiarly apt to beset all of us, and the chief enemy to concord in our ranks. Oftentimes it is a thoughtless evil, a sort of tic or trick, an unconscious

habit of mind and tongue which gradually takes possession of us. * * * We have lost our fine sense of the tragic element in this vice, and of its debasing influence ou the character. It is interesting that Christ aud the apostles lashed it more uusparingly than any other. * * *

And the third cause is the wagging tongue of others who are too often ready to tell tales and make trouble between physicians. There is only one safe rule—never listen to a patient who begins with a story about the carelessness and inefficiency of Dr. Blank. Shut him or her up with a snap, knowing full well that the same tale may be told of you a few mouths later. * * * Sometimes it is impossible to check the flow of imprecation and slander, and then apply the other rule— * * * —never believe what a patient tells you to the detriment of a brother physician, even though you may think it to be true.

To part from the profession of this country and from this old faculty, which I have learned to love so dearly, is a great wrench, one which I would feel more deeply were it not for the nearness of England, and for the confidence I feel that I am but going to work in another part of the same vineyard, and were it not for the hope that I shall contiuue to take an interest in your affairs and in the welfare of the medical school to which I owe so much. It may be that in the hurry and bustle of a busy life I have given offense to some—who can avoid it? Unwittingly I may have shot an arrow o'er the house and hurt a brother—if so, I am sorry, and I ask his pardon. So far as I can read my heart I leave you in charity, with all. * * * And I would give to each of you, my brothers—you who hear me now, and to you who may elsewhere read my words—to you who do our greatest work laboring iucessantly for small rewards in towns and country places—to you the more favored ones who have special fields of work—to you teachers and professors and scientific workers—to one and all, throughout the length and breadth of the land—I give a single word as my parting commandment:

"It is not hidden from thee, neither is it far off. It is not in heaven that thou shouldst say, 'Who shall go up for us to heaven, and bring it unto us that we may hear it and do it?' Neither is it beyond the sea that thou shouldst say, 'Who shall go over the sea for us and bring it unto us that we may hear it and do it?' But the word is very nigh unto thee, in the mouth and in thy heart, that thou mayest do it—Charity."

CLINICAL FEATURES OF GALLBLADDER AND GALL DUCT AFFECTIONS.*

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THE right upper quadrant of the abdomen is a territory so thoroughly explored of late, a field so recently fought over, that it cannot now be made the theater of very stirring events. We are concerned here with diagnosis of different forms of cholecystitis, cholangitis, but particularly cholelithiasis.

I. Varied subjective symptoms should weigh heavily in differential diagnosis.

1. Pain.—Many gallstone cases still come labeled "gastralgia" despite all emphasis of recent literature. Recurring attacks of severe epigastric pain are most suspicious of trouble about the gallbladder; adhesions, kinking of the duct (A. T. Cabot, Krukenberg), syphilis; above all, cholelithiasis; Riedel says that in 90% of cases gastralgia is due to gall stones. Jonathan Hutchinson said as far back as 1888, "Hepatic colic is a far more common event than it is generally supposed to be, and many cases escape recognition because there is a general belief that jaundice ought to be present."

The weight of opinion refers colicky pain of gallstones to increased tension in the gallbladder due to inflammation, and not to cramp of the duct due to the irritation of a stone within. In 5 of my cases with severe colic, operation showed a big stone completely blocking the neck of the bladder. Some patients refer their colic wholly to the epigastrium and about the navel, but most often there will be history of pain starting in the gallbladder region and radiating toward the median line, upward, and into the right subscapular regions. Murphy says that with stone in the pelvis of the gallbladder or in the cystic duct in 7 cases out of 10 pain is referred to the right subscapular region, in 1 to the left subscapular region, and in 2 to the front of the chest as high as the neck. In 2 of my cases the pain started each time under the left scapula. In one woman the attack began regularly with pain down both sciatics, pain under the left scapula followed, and then epigastric pain became intense. If proper attention is given to accompauying symptoms, and the patient be carefully examined, gastralgia due to gallbladder affections can hardly be confused with the pain of acute pericarditis, diaphragmatic pleurisy, pneumonia, tabetic crises, angina, arteriosclerosis of abdominal vessels or lead poisoning. I well remember, however, a patient brought into the hospital accident room with fever, acute abdominal pain, and slight jaundice, who was thought to have appendicitis or cholecystitis, until a lead line determined the diagnosis. Nerve root irritation may give pain in the gallbladder zones, and rigidity and hyperalgesia may be present. I have seen syphilitic nerve root trouble thus simulate abdominal disease. Stomach ulcer is not often marked in my experience by severe gastralgia unless there are adhesions to the liver, pancreas, or omentum. The paper of Tripier and Paviot on "The Peritonitic Pathogenesis of Painful Epigastric Crises" is interesting in this connection. The severe pain of ulcer is more apt to be localized to a small epigastric area, more apt to radiate to the left and directly backward to the left of the spine. It may be affected definitely by position or be made worse by food. But it must be remembered that the pain of ulcer is notoriously scornful of all rules, that cholelithiasis and ulcer are not uncommon associates, that stomach symptoms in cholelithiasis are the rule, that inflammatory processes due to either cause may involve the same organs.

Valuable hints are afforded by the more constant radiation of gallbladder pain to the right subscapular region, by areas of hyperalgesia, and by the demonstration of tender dorsal points. If pain is quieted by orthoform this is said to speak more for ulcer. Repeated examination of the stools by the guaiac or aloin test will give valuable evidence. Albumosuria after ingestion of somatose speaks more for ulcer. Duodenal ulcer is even more difficult to differentiate. Mayo mentions patients operated upon for cholelithiasis with necessity of later operation for duodenal ulcer. I remember a man of 40 with hyperacidity, severe pain coming on 2 or 3 hours after meals, and tenderness over the head of the pancreas. It was before the days of the aloin test, and a probable diagnosis of duodenal ulcer was made. After a few days of Carlsbad, an attack of colic supervened, and gall stones were found in the stools.

In several of my histories there was account of pain over the liver in the back for years, a heavy drag or ache, occasionally rising to sharp pain. In 2 cases hyperalgesia could be demonstrated in the distribution of the ninth and tenth dorsal segments on the right. Head thinks that the eighth dorsal segment has closest relation with the gallbladder. In my cases the hypersensitiveness was only on the right. In 2 cases of gastric ulcer, hyperalgesia was found on the left side front and back in the distribution of the seventh dorsal segment. More attention should be given these areas of hyperalgesia in abdominal disease than is now accorded them. Sherren had a valuable article on their relatiou to appendicitis in the *Lancet* for September 19, 1903. In gastric ulcer the dorsal point of tenderness is not frequently found just to the left of the eleventh dorsal spine. In gallbladder dis-

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ease Boas has drawn attention to tenderness over the posterior surface of the liver from the tenth dorsal to the first lumbar vertebræ and from the posterior axillary line to within 2 cm. of the spinal column. Usually the maximum of tenderness in my cases has been about 4 cm. to the right of the eleventh dorsal spine. It is a valuable sign when present.

Affections of the pancreas are undoubtedly frequently overlooked clinically. Accompanying pain is most often epigastric with radiations to the left and upward. In a case of pancreatic cyst seen lately with Dr. Clarke Burnham, a very marked feature of the pain before tumor was felt was the radiation up along the esophagus. There is under my observation now a remarkable case reported by Dr. Kinnicut in *The American Journal of the Medical Sciences* for December, 1902. For years this lady passed pancreatic calculi, and of late years has passed gallstones. The colic with both kinds of calculi has been the same, the pain begins under the right shoulder, and radiates then to the epigastrium. There is slight tenderness now over the gallbladder and over the Boas dorsal area, and hyperalgesia in the right ninth and tenth dorsal segments; the right epigastric reflex is livelier than the left.

In appendicitis, pain, tenderness, rigidity, and segments of hyperalgesia lie lower than in gallbladder disease, unless the liver be low or the gallbladder is much enlarged. Of course the possibility of an undescended cecum or of a long retro-colic appendix must be borne in mind. The dorsal pain and tenderness of gallbladder disease is of much value in those bothersome cases so often seen in which there is complaint of dragging and ache in the right side, and we have to decide chiefly between appendix, gallbladder, right kidney or colon as the source of pain. In 2 cases of cholelithiasis, there was much complaint of pain down along the colon and in the appendix region; the appendix was removed at operation, and found normal. Two cases were operated as gallstones owing to the localization of pain and the presence of an irregular right lobe of the liver. Neither gallstones nor cholecystitis were found, but adhesions along the ascending colon and a corset liver.

In two instances I have seen repeated attacks of severe pain in the right hypochondrium and epigastrium associated with the passage of large quantities of intestinal sand. It is not unusual to have pain of mucous colitis sent in as cholelithiasis or more commonly appendicitis. Pain due to hyperchlorhydria gastralgia or indefinite aches due to epigastric hernia, and the colicky pains of enteroptosis may likewise lead to confusion. In many instances of indefinite pains in the right hypochondrium, the clinician will find it difficult to decide between kidney and gallbladder as possible causes. Undoubtedly many symptoms referred to floating kidney are due to existing gallbladder disease. Dietl's crises are rare events. Blood corpuscles in the urine and casts go with any acute abdominal pain, and do not help in decision. I have seen a tubercular kidney give sharp attacks of pain in the right hypochondrium and epigastrium. As a rule, of course, kidney pain will radiate more downward into the groin or many be referred to the thigh or even down the long saphenous nerve. I have seen 2 cases of adrenal tumors with pain and parasthesiæ over the outer aspect of the thigh for months before marked symptoms developed.

A woman seen 4 years ago had history of paroxysms of chills, fever and sweats recurring over a period of 18 months. The attacks were ushered in by pain along the inner surface of the calves, and at times severe pain in the left hypochondrium. There was an irregular liver lobe, tenderness in the gallbladder region, a leucocytosis during attacks, a rather tender right kidney, and a few blood cells and leucocytes in the urine. The case seemed plainly one of so-called hepatic fever without icterus due to a stone in the common duct. Operation showed the supposed Riedel lobe to be an ordinary corset lobe, and the cause of pain and fever a calculous pyelitis. It is in cases of this kind that repeated examinations of the tumor and of the urine are necessary, and that X-ray plates are so valuable. Acute abdominal pain in the course of uremia has been emphasized again, of late, by Musser.

Reading through histories one is struck how frequently the trouble started, it may be years before, with so-called attacks of gastralgia. The beginning is, in my experience, frequently between the ages of 20 and 30. Not long ago I saw a young woman of 23 whose attacks dated back 7 years. The incidence at this age need not surprise us when we remember the frequence of cholecystitis during typhoid. A history of typhoid should be given weight in diagnosis. There is now under my observation a young man with indefinite pain in the right hypochondrium who had typhoid 6 years ago, and still bears marks of blisters applied over the liver at the time for some painful affection.

Often, as years go on, patients lose their severe colic attacks in great measure, and become subjects of more constant aching under the liver or of occasional nagging, gnawing, boring pains or distress and weight in the epigastrium. Cough, a sudden strain, continued jarring occasion pain from time to time, and varied influences may wake such latent cholelithiasis into renewed activity. After an unusually heavy dinner, after a moderate amount of alcohol, in some of my patients after indulging in sweets or drinking milk for a few days, pain in the liver region becomes severe, tenderness appears over the gall bladder or in the back, the gallbladder may be felt, sharp colic may occur. During menstruation, after trauma, after a nerve shock, or a fit of anger, the same influence may be apparent. Just as in latent appendicitis an attack may follow tonsillitis, or a "cold" or "grippe," so the patient with cholelithiasis is in unstable equilibrium and may show symptoms under influence of infection. It is important to examine in these stages of activity, as signs may be unequivocal that were before mere suggestions. Just this month a woman who has been under suspicion for a year on account of indefinite indigestion, stomach atony, and peculiar sallowness, developed fever and some abdominal pain in the course of what she termed grippe. The upper abdomen was distended, there was tenderness over the gallbladder, and the gallbladder could be felt for the first time.

At times a patient with latent trouble will develop sharp pain after being given Spruedel salts for a few days—an event long known to Carlsbad physicians. I have noted the same thing after 120 grammes of olive oil and after 30 grammes of glycerine given for diagnostic purposes.

The relations of migraine and cholelithiasis have interested me for some years. Gall-stones are common in migraine families, and Kehr notes the frequency of migraine with gall-stones, and says he has repeatedly known the attacks to cease after operation. The same nerve or dietary influences may precipitate an attack of migraine or hepatic colic. In my experience both classes of patients often cannot take sugar, milk or eggs with impunity, and both classes often feel unusually well and unusually hungry just before attacks. Among migraine equivalents must at times be reckoned, in my experience, attacks of abdominal pain; just as Oppenheim has noted periodic extremity pains. In children with acid intoxication, there may be attacks of severe abdominal pain in region of the liver, or about the umbilicus or appendix associated with incoercible vomiting. Two children with such attacks occasionally under my observation are of migraine stock, and have lately developed headache with the seizures.

Mention has already been made of the diverse stomach symptoms in the course of gallbladder disease. Vomiting is frequent, and often relieves pain. Stomach atony is a common feature even in latent cases. Marked dilatation and motor insufficiency are due to

adhesions or the pressure of a big gallbladder on the duodenum. According to Riedel, adhesions when stones are in the gallbladder are chiefly with transverse colon and omentum; when lower down, with the stomach. In 2 of my patients unexplained motor insufficiency led to closer examination of the gallbladder with result later of removal of stones by operation. In my experience not much help is given by stomach analyses. Hyperacidity and hypoacidity have been present at different times in the same patient. Hypoacidity has been found even at a time when bulimia was noted. In 2 patients that came under my notice, exploratory laparotomy was done for suspected pyloric carcinoma. In both there were signs of motor insufficiency, no HCl, abundant lactic and Boas-Oppler bacilli. In both cases gallstones with adhesions were found as cause of the symptoms. The majority of patients are constipated. Purging often leads to quick relief of colic, and favorably influences the course of the cholecystitis upon which the attack depends. It is only necessary to mention here ileus that may be simulated by cholecystitis, and the ileus due to adhesions or to stones within the bowel.

Enteroptosis and gallstones frequently go together. It is wise to hesitate in diagnosis of an additional cholelithiasis, however, as colicky pains are not infrequent in enteroptosis; kinking of the gall duct may readily occur with perfect simulation of hepatic colic; irregularities of the right lobe are not infrequent; and the movable right kidney may be an additional factor in causing pain or confusing palpation. In two such cases positive results of X-ray plates taken by Dr. Cooper have been of the greatest help.

II. Jaundice.—We are much indebted to surgeons for their persistent teaching that jaundice is a comparatively rare symptom in gallbladder disease. Kehr says that in 80% of all cases of cholelithiasis jaundice fails. If we remember in the big majority of gallstone cases pain is due not to the passage of a stone, but to distention and inflammation of the gallbladder, it is readily understood why jaundice does not usually occur.

Kehr and Riedel classify jaundice as inflammatory or lithogenous. A certain degree of inflammation of inthrahepatic ducts may occur with cholecystitis and inflammatory jaundice result. Even if jaundice occurs after the colic, therefore, it is no sign that the attack has been successful in passing a stone through the common duct. Even with a stone in the choledochus, there need not be jaundice; it is most important to know that ball-valve calculi may for months, and even years, give rise to intermittent hepatic fever, and not cause jaundice. Cases with jaundice are often difficult of diagnosis. If fever be present, we must consider various infections, Weil's disease, pneumonia, typhoid. Suppurative pylephlebitis, jaundice of septicema and liver abscess must be ruled out. It is at first impossible to distinguish between inflammatory and lithogenous icterus. It must be remembered that a stone may lodge in the choledochus without any previous warning. Jaundice due to malignant disease is, as a rule, persistent and of a more greenish hue. The jaundice of cholangitis is variable in intensity, and bile is present in the stools; it deepens frequently after a paroxysm of fever. Three cases will serve to illustrate difficulties of diagnosis when jaundice is present:

1. A young woman was seen 3 years ago with typical cholelithiasis that had given symptoms for years. Cholecystectomy was done because of the shrunken, thickened viscus. Six weeks ago, after moderate diet, errors while traveling, icterus came on suddenly without pain and with complete absence of bile from the stools. Spleen and liver are not large, and there is no fever. Diagnosis is yet to be made between catarrhal icterus and blocking by a stone which might have been in the cystic, common, or hepatic duct at time of operation.

2. A man was seen lately, delirious from sepsis with remittent fever broken by steep curves, jaundice steadily deepening, leukocytosis, marked tenderness over the gallbladder region and head of the pancreas, a Cammidge test pointing toward an acute or subacute pancreas lesion. There was history of chronic indigestion referred to the stomach, more or less epigastric pain, and onset of severe pain about the navel 10 days before. There was no tenderness in the appendix region, but rigidity of the muscles there as well as above. Diagnosis seemed plain of cholelithiasis and cholangitis due to a stone in the choledochus. Operation disclosed purulent peritonitis between coils of the ileum, the appendix perforated and pointing toward the umbilicus. Autopsy showed no lesion of the pancreas, and no pus in the gall ducts.

3. A year ago a man of 40 was seen with Dr. Goodale. Jaundice had developed painlessly after an epigastric trauma 6 weeks before. No bile entered the intestine, the liver was large with a well-marked Riedel lobe. The gall bladder was very large, and twisted into the epigastrium and to the left of the median line. There was no pain, tenderness, fever, or leukocytosis. Cammidge test was interpreted as meaning carcinoma rather than pancreatitis. Coagulation time of the blood was 4 to 5 minutes. From the absence of pain, from the intense jaundice, and the big gallbladder, a diagnosis of malignant disease of pancreas or choledochus was made. Operation showed stones in the gall bladder and common duct, and what later proved to be interstitial pancreatitis with thickening of the head. Death occurred from hemorrhage. In some cases of long standing cholelithiasis, there is a peculiar bronzing of the skin, though without bilirubinuria. I have no experience with Hamel's serum test in such cases, but have found urobilinuria in 2 cases, and seen the color fade after operation.

Fever.—Acute cholecystitis may be marked by high temperature. Steep curves may be seen on the chart without necessarily meaning pus. In the course of typhoid, if cholecystitis occur, there is often a marked rise of temperature with remittent course. With the frequent mild attacks of cholecystitis, with cholelithiasis, there may be moderate fever for a few days. In 2 cases of cholecystitis in women with gall stones, seen during the past 2 years, there was remittent fever for 4 weeks, and a clinical picture much like typhoid, except there was leukocytosis of 18,000 to 20,000. There was no clumping to colon cultures.

The remarkable fever type known as the intermittent hepatic fever of Charcot is well known. It is most often associated with ball-valve calculi in the choledochus, but during the last years a number of cases of liver syphilis with intermittent fever over periods of months have been reported.

Examination of the abdomen.—Inspection may show prominence of the liver region or a definite gallbladder tumor. Percussion may outline the liver or even a big gallbladder, and help judge the shape and thickness of a corset lobe. Very rarely the grating of the stones may be audible or a friction rub may be heard after a gall stone attack. Palpation is by far the most valuable method of exploration. I cannot too strongly advise palpation of the abdomen in a hot bath, as it is fully as efficacious as anesthesia in many cases, and can easily be arranged even with women, by a proper disposal of covering sheets. Rigidity of the rectus in its upper third is a valuable indication of inflammation below. Points of tenderness have been sufficiently exploited. I have in one instance palpated friction due to perihepatitis following cholecystitis. The gallbladder may be distended with bile, serous fluid, mucus, pus, stones, hydatids and present as a tumor. It is often difficult to distinguish clinically between primary cholecystitis and that secondary to stones; diagnosis must be made from the associated symptoms. The gallbladder may be distended with stones or fluid to form quite a large tumor and yet remain hidden under the liver. Riedel has emphasized the fact that the gallbladder may be large, and yet so limp as to escape detection until inflammation leads to increased exudate and tension. In cases of stone it is advisable to examine just after an attack when the liver will be found tender, and not infrequently the fundus of the gallbladder be felt just to the outer side of the right rectus. In acute cholecystitis the tumor may quickly disappear. A tumor is recognized as being gallbladder by its shape, by the fact it can be swung around from side to side from its attachment to the liver, by tracing the liver edge on either side of it. It cannot be held down during expiration, though of course pyloric tumors adherent to the liver will behave in the same way. It can be pushed up under the liver, but does not snap back with the

same ease as a floating kidney. Distending the colon pushes the kidney tumor back and the gallbladder forward or upward. Distending the stomach pushes the tumor to the right and forward so that it can more easily be felt. Neglect of this rule led me to diagnosticate a big gallbladder instead of a pancreatic cyst. Masses of exudate or adhesions about the gallbladder will naturally interfere with proper judgment. The colon must be emptied before examination. The big gallbladder may be felt in the midline or even to the left as well as along the outer border of the right rectus, and it may lie low in the abdomen if the liver is displaced. Courvoisier's law is well known, and has been substantiated by the many operators of late years. The gallbladder is found enlarged when obstruction of the choledochus is due to cancer or compression from without, but not when due to stone.

According to Kehr, liver changes are not demonstrable in ordinary cholecystitis, but the gallbladder tumor and the exudate in the neighborhood are often taken for enlargement of the liver. He makes exception of the part of the liver overlying the gallbladder which often grows out to a tongue-formed process, and is frequently mistaken for a floating kidney. This prolongation was described by Curvelhier, but the article of Riedel in the *Berliner klinische Wochenschrift* for 1888 first directed attention to its clinical value. Riedel's lobe is of great value in diagnosis of cholecystitis, and especially in latent cases. That it occasionally is due to adherence of tumors to the liver with drawing out of the liver substance does not detract from its usual significance. It may disappear completely after operation. It must be distinguished from the corset lobe, which at times may be so nearly detached from the liver as to flap to and fro like a kidney tumor or big gallbladder.

During the past 2 years several patients with pain and tumors in the gallbladder region have come under my notice, in whom the symptoms could be explained in no other way than that they were syphilitic. Cases of Quincke, Koenig, Riedel are interesting in this connection. There may be infiltration of the omentum or wall of the colon or gummata of the liver on convex or under surface. In my cases there was comparatively little pain, but Quincke reports typical hepatic colic, and there may be intermittent hepatic fever. Riedel and Koenig cite remarkable cases. It cannot be too strongly urged in indefinite tumors in this region with or without fever to think of syphilis as a possible cause.

Palpation may develop another important sign of cholecystitis often called Murphy's sign. If the fingers are hooked over the ribs and the patient asked to take a deep breath, if there be irritation about the gallbladder the right half of the diaphragm suddenly stops as the liver is forced against the hand, and there is complaint of pain. Leichtenstern laid much value on the presence of "Virchow's gland" above the left clavicle in distinguishing simple cholecystitis from gallbladder cancer.

III. Laboratory diagnosis.—The urine offers little help in differential diagnosis. I have frequently found urobilinuria after the slight attacks in latent cholelithiasis. Bilirubin may be found in the urine before jaundice is apparent. The Cammidge test in my experience cannot be afforded the weight given it by Mayo-Robson in deciding presence or absence of pancreatic involvment. In a case already cited in which the pancreas was free at autopsy, the test pointed to acute pancreatitis. In another, both reactions gave crystals, and yet there was chronic swelling of the pancreas head. In a case of pancreatic cyst the crystals were found by both methods, and a few days later only with method A. It is interesting to note that in the case of biliary and pancreatic calculi already mentioned, the test indicated a chronic pancreatic affection.

Glycosuria may rarely occur after an attack of hepatic colic, but late observers deny the frequency noted in Czerny's clinic. Alimentary glycosuria or levulosuria is of no clinical value.

Examination of the stools can be most conveniently done with the apparatus of Schmidt. Hepatic colic does not mean the passage of calculi as a rule; in fact, the most violent colic may occur without the presence of stones. Calculi may pass the common duct and lie long in the intestine or be disintegrated. Passage of calculi larger than a hazelnut means nearly always a biliary fistula. The presence of cholestrin shows a calculus to be of biliary origin. Pancreatic calculi consist of phosphate and carbonate of lime. Intestinal sand is made up of organic matter and a small amount of phosphate of lime and magnesia. Leukocytosis, according to Musser, is present in all primary infections of the gallbladder "except typhoid fever; absent or uncertain in all secondary infections. Its presence, therefore, points to a primary lesion." I have a number of counts in cases of cholelithiasis in the latent stage that show nothing abnormal. In 2 cases of acute cholecystitis with presence of stones there was a leukocytosis of 18,000 to 24,000 over a period of two weeks; iodophilia was present. There was no clumping to colon bacilli cultures. In an obscure case of cholelithiasis there were paroxysms of epigastric pain without fever or palpable gallbladder, but with each attack the leukocytes rose from 6,000 and 8,000 to 18,000 and 20,000, with 80% to 90% polynuclear forms. In one case of choledochus stone with intermittent fever the leukocytes rose and dropped with the temperature, as in the cases reported by Pick. The presence of leukocytosis does not necessarily mean suppurative cholecystitis or cholangitis.

Musser says that the red count should be made repeatedly. "In jaundice it falls rapidly, and the degree of reduction should guide one in the indications for operation."

The coagulation time should be watched in jaundice cases. In one of my observations it was lengthened to 5 and 6 minutes instead of 2 or 4, the normal. Death occurred from slow hemorrhage after operation. Mayo Robson first pointed out that hemorrhage is much more apt to occur in cases of jaundice in which the pancreas is involved. With slow coagulation, therefore, it is well to think of a pancreatic affection. One jaundiced case with a fatal oozing after operation showed pancreatic disease.

Hamel has described a delicate test for presence of bilirubin in the blood. Blood is drawn from the ear in a capillary tube. The serum is of greenish yellow tinge if bile be present. Serum clump reactions in cholecystitis may be useful in the course of typhoid, but have not proved satisfactory as yet in cases with colon or pneumococcus infection. I have 2 patients with cholelithiasis and history of typhoid 4 and 5 years ago in whom the Widal reaction is positive. It will be remembered that cases have been reported of late in which acute cholecystitis was found due to typhoid bacilli without any other symptoms of typhoid.

IV. X-ray plates.—This method of examination should be given much more attention in topographical abdominal work. In 3 cases during the past months, plates taken for me by Dr. C. M. Cooper have shown shadows that add further evidence in support of the clinical diagnosis, cholelithiasis. Negative evidence is of no value, as the composition of most gall stones renders it difficult to differentiate them from surrounding tissues. Of great value is the knowledge we get of the position and shape of the liver edge and the outline of the convex surface beneath the diaphragm curve. A good plate will help to decide whether there be anything pathological in or under the liver to explain varied indefinite pains and aches; may show whether an indefinite mass felt is connected with liver or kidney; may supplement palpation in demonstrating a Riedel or corset lobe; and may in some instances give further proof of calculi.

PRELIMINARY EDUCATION.*

By LINCOLN COTHRAN, M. D., San Jose.

IT HAS been the policy of the members of the State Board of Medical Examiners to avoid acquaintance or friendship with candidates who come before the board for examination. I am satisfied that every member has striven to ask reasonable questions, to be fair and impartial in his markings. In order to obviate any predilection toward unconscious favoritism of particular candidates, the board has adopted a suggestion of Dr. King to have a box in which candidates drop their numbered papers. This, of course, precludes identification by the examiner of any person by his number.

The labors of the credentials committee have been most painstaking and arduous. The committee not only subjects the graduates of California schools to the closest scrutiny, but it goes into the college records of eastern graduates. This is done by correspondence and telegrams with college authorities, and also by communication with other state boards of examiners, with whom in this respect we have entered into reciprocal relations.

A year's experience as a member of the State Board of Medical Examiners familiarizes one with the deficiencies in those institutions having by state law the authority to confer the degree of "Doctor of Medicine."

The 5 minutes allotted for this paper is too short a time to detail the many faults which have presented themselves before the board. Therefore, the one defect to which I call your attention is the lack of preliminary education on the part of a goodly number who appear for examination before the state board, as shown by and in their examination papers. In these the examiner observes the commonest words misspelled, they being neither according to Websterian standard nor of strictly phonetic type. Here are a few samples taken from papers submitted to me by candidates: "bludvescles," "branes." "tung," "fagocites," "uren." Other examples exhibit a frequent style of virgin originality, such as "splean," "recktum," "dyafram," etc., etc., orthography that would have made Josh Billings rave with envy. They were not "joshes," however; they were scrawling earmarks of untutored earnestness. Sentences are begun with small letters and ended with commas or semicolons. Prepositions and adjectives occurring in the middle of a clause are garnished with capital letters. Paragraphing is bounded only by the limits of the foolscap sheet upon which it is displayed. The opulence of spelling is sometimes surpassed by poverty of diction which would amuse 10-year-old children in primary schools.

It is obvious that such uncultivated soil is unfit to receive the seeds of medical knowledge, since they cannot germinate and fructify into products useful to humanity or beneficial to our profession.

Where lies the blame? These poor possessors of diplomas present themselves for examination and fail to pass. Their indignation is at once aroused, and they, with their Alma Mater, threaten dire disaster to the state board and the law which created it. They do not reflect that the board has but done its sworn duty, nor can they realize at once that they are the deluded victims of criminal rapacity on the part of mercenary institutions which have encouraged them to enter upon the study (?) of medicine with the assurance of speedily becoming doctors.

So long as medical colleges do not reject incompetent material, the condition of illiteracy will ever confront us. In one school of this state it is almost certain, in another it is extremely doubtful that anyone has ever been refused admission owing to lack of preliminary education.

While it is true that some of the very best medical colleges are not affiliated with state universities, and receive no state patronage, the fact remains that each and every so-called diploma mill is under private ownership and control. The statutes of California in this respect are peculiar. Under them any body of 5 men, not necessarily physicians, may associate themselves, incorporate, form a medical college, elect themselves trustees thereof, perpetuate themselves in office and lawfully confer degrees without even their reference to a faculty. An instance may be found in one of our California schools where the board of trustees consists of but 5 members, 3 only of them being physicians. It is apparent how such a law can be used advantageously for the commercial interests of a college. The only check to its annual output engaging in practice in California, together with that of some eastern institutions of similar character, lies in the faithful discharge of duty by your state examining board. Other states and territories where no test of qualifications exist, and to which these graduates might emigrate, would necessarily suffer by this undesirable addition to their population.

The Association of American Medical Colleges, while providing a standard of preliminary education, has no means of its own for ascertaining that its requirements are carried into effect. A published announcement might wear the robe of snow-white purity. Stripped of the garment it may reveal a form of careless indifference or disclose an utter foulness within.

It was for the purpose of requiring all colleges in this state to comply with the wise regulations of the association, besides affording protection to the public, that the present medical law was enacted. Boards under former laws possessed the same legal power to go behind diplomas and ascertain under what conditions they were granted. This authority, however, was seldom used, and this failure on the part of the boards was, no doubt, the main cause which led the profession of this state to rise in its majesty and legislate both boards and law out of existence by creating a new statute.

It is far better to have no law than one not enforced. It is to the State Board of Medical Examiners that we are to look for the fulfillment of the law. There ought to be no antagonism between colleges seeking to do right, and the state board. Working in concert, all reforms prescribed by the association of colleges can be readily accomplished, while any disreputable element will sooner or later meet its fate. The board must be, and aims to be just. It should be remembered, however, that it is not to any faction or to the numerous medical colleges that the board owes allegiance, but to the whole medical profession and the people of the state of California.

DISCUSSION.

Dr. John C. King, of Banning, called attention to the influence of state boards in elevating the standard of our medical colleges, and referred to the fact that the Supreme Court, in its decision, recognized this influence. He spoke of the rapid increase in the number of colleges and of the attending competition among them, which had resulted in the admission of immature material and the graduation from them of inadequately prepared men. This condition of things, he claimed, had originated the demand for examining boards. The profession and the public claimed protection from the colleges. In his opinion the most important function of the state board is its reflex influence upon the college, obliging the latter to maintain the spirit of the standard established by law.

Dr. Walter Lindley, Los Angeles, said: As a member of the faculty of one of the medical colleges of California, I speak for myself, and I believe that I speak the sentiments of all of our faculty in saying that we rejoice at the thoroughness of the work of the State Board of Medical Examiners. No college that is doing clean, thorough work, objects to having the credentials that it has on file examined. The college that objects is the college where such examinations are most imperative, and the college that

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

does not object will be benefited by the suggestions and comments of the members of the state board.

I have just returned from the meeting of the Association of American Medical Colleges in Chicago. There was a large attendance, about 60 colleges being represented. The most important work of the meeting was the discussion in regard to the schedule of hours for the 4 years' course; and the discussion in regard to whether the high school, whose diploma would be recognized, should be required to have a 3 years' or a 4 years' course; also the discussion in regard to the amendment of Dr. Wm. J. Means of the Ohio Medical University: "Time credits for a bachelor degree could only be granted after an examination of the students' credentials by or under the authority of the Superintendent of Public Instruction of the city or state in which the college is located, or by the State Board of Medical Examiners, duly authorized by law."

Dr. George M. Kober of Washington, D. C., made the report in regard to a national uniformity of curricula. In this report the committee recommended that 4,000 hours for the 4 years be required as a standard, but that there might be 10% reduction in this number of hours. In other words, that 3,600 hours should be the minimum. The committee suggested that the first year 900 hours should be required; the second year, 905; the third year, 1,075 hours, and the fourth year, 1,120 hours.

The discussion of this report waxed very warm, but the report was adopted, except that the division of hours during the 4 years should be left to each college. This report can be secured by any who are interested, who will write to Dr. George M. Kober, Washington, D. C., asking for a copy.

In regard to whether the high school should require a 3 years' or a 4 years' course, the feeling was most intense, as the members from the southern states maintained that in the south the high schools only required 3 years, and that it would practically discredit all southern high school graduates. After a long discussion, and at times a very excitable one, it was decided almost unanimously that the high schools should have a 4 years' course. I am glad to say that this was settled with the best of feeling—the members from the south deciding that they would require an examination instead of depending upon the diploma. The amendment offered by Dr. Means was also adopted.

Every action that was taken at this meeting was in the direction of raising the standard of medical education, and the standard of medical students. I was glad to hear the State Board of Medical Examiners of California so highly spoken of by the members of the Chicago meeting, and it behooves the State Society to maintain its present commendable position.

REPORT OF THE WORK OF THE BOARD OF EXAMINERS.

By DUDLEY TAIT, San Francisco.

SINCE the meeting of this society at Paso Robles, a decision has been handed down by the Supreme Court sustaining the medical law regulating the practice of medicine in this state. Written in lucid and logical language by Judge Shaw of Los Angeles, and concurred in by the entire court, this document passes upon the constitutionality of almost every section of the law, thus obviating the necessity for considerable special legislation.

The friends of higher education will rejoice over the action of the court in sustaining the truly scientific national standard of the Association of American Medical Colleges, which represents the keystone of the medical act, standard for which we must thank Dr. F. B. Carpenter, justly called the "Father of Our Medical Law." The work of the Board of Medical Examiners for the past year was characterized by two features: 1st, a strictly legal attitude regarding all problems—consequently the enforcement of the legal standard of educational requirements; 2nd, absolute fairness to all, favoritism to none. Fellow members, as incontrovertible proof of the foregoing statements, we bring you the official minutes of the board, its records and some statistics deduced therefrom.

Statistics:

EXAMINATION RETURNS.

	Passed.	Failed.	*Credentials Rejected
Cooper	40	4	2
Univ. of Calif.	35	2	None
Phys. and Surgs. of S. F.	16	11	13
Hahnemann	7	1	4
Calif. Med. Coll. (Eclectic)	1	3	1
Univ. of So. Calif.	22	4	2
P. C. Reg. Coll. of Med. (Fraudulent)	...	...	2
Outside Colleges	110	50	4

Failures, Calif. Grad. 17%; Outside Colleges 30%.

It may be safely asserted that failures of applicants are habitually due to, 1st, the college course; 2nd, and principally the date of graduation of the applicants. Thus, while Eastern and Middle State boards show from 3 to 4 per cent of applicants having graduated five years or more ago, the California board began with 50 per cent, and then gradually descended to 20 per cent of this class of applicants. On the other hand, the proportion of rejections of this class of so-called "old graduates" varies in other boards from 40 to 100 per cent, while in California the average has been 50 per cent. Periodic pleas have been made for the class of elderly practitioners, but the law allows no discrimination, and under the ballot box régime, introduced by our exemplary colleague, Dr. J. C. King, segregation of applicants becomes absolutely impossible. With the ballot box the board no longer examines applicants, but passes on numbered papers. The individuality of the applicant only becomes known after the markings have been passed upon by the entire board and the general averages computed and recorded by the secretary. The degree of importance or severity of a given examination subject is generally determined by one fact; if the examiner in said subject be Eclectic the open door policy rules, and all applicants pass with the blue ribbon. Example: In October, 1904, all the applicants passed in anatomy and obstetrics held by Eclectics, whereas in chemistry, held by a regular, 80% failed. At the same examination the homeopathic examiner in surgery obtained the same percentage of failures as the regular in pathology (26%).

The Eclectics continue to select state examiners from the faculty and trustees of the Eclectic College of San Francisco, and the result is invariably noted in the excessively high markings accorded Eclectic applicants in the subjects held by their sponsors in the board, whereas in other subjects their showing is invariably lamentable. Example: 2 Eclectics were given 100% in several subjects, and even then failed to secure the necessary 75% general average.

The perusal of the official markings in the cases of unsuccessful candidates most invariably shows a deficiency in four or more subjects out of the nine. No applicant ever failed to secure a license on account of deficiency in a single subject. Consequently it may be said that the markings of a single examiner do not materially change the general result.

Example: (Graduates of the University of Southern California.)

RECORD OF FAILURES IN UNIV. OF SO. CALIFORNIA.

No.	Anat.	Phys.	Chem.	Med.	Surg.	Obstet.	Bact.	Mat. Med.	Path.
666	82	82	63	78	78	69	60	69	50
692	75	91	71	80	75	78	62	89	54
695	89	94	62	82	70	76	69	68	58
824	75	66	62	75	77	80	58	69	40

*Irregularities were found in every college in California except the Medical Department of the State University.

In case of disputed or contested markings a general review by the board may be and has been ordered. Several papers in pathology have been submitted to professors of various colleges in San Francisco and Los Angeles, and in every instance the markings by college professors were below those of the official examiner. The California board in dealing with applicants for license shows far greater consideration than is customary in Eastern and Middle State boards. For instance, in the California affidavit no attempt is made to gather a mass of information deemed indispensable by most boards; no signed photograph is exacted, as in New York and Washington; no mention is made of the section of the code relating to false affidavits, as in Michigan. In California every applicant is entitled to a hearing by the entire board.

Gentlemen, in questions pertaining to medical legislation the majority of misunderstandings, I should say almost all misunderstandings, may be ascribed to ignorance of the medical law. It required the pioneers of the board more than two years to comprehend the scope of and learn to apply the medical act in its entirety. While only the minor sections of the law were being enforced the horizon remained serene; alas, the instant we began to do our duty and ceased to violate our oath of office, clouds issued from the Eclectic camp, gradually invaded our own fold and then drifted in the direction of the legislature.

Mr. President and fellow members, few of you understand the position occupied by members of the Board of Medical Examiners. We are not officers of this society; we do not represent this society, nor do we represent the regular school or any other school of medicine. We are sworn state officials. Under the old medical law this principle was definitely settled in the Frazier case. Under the present medical act the decision of the Supreme Court reads as follows:

"The Board of Examiners when constituted, is not the agent of the medical society which appoints its members, and its functions are not conferred or designed for the benefit of those societies or either of them. The board constitutes a state agency for the regulation of the practice of medicine and surgery, and it must discharge that duty under oath, and impartially for the benefit of the people, and not for the promotion of the interests of any school of medicine or medical society."

'We are honor bound to report to you the workings of the board; we are duty bound to comply with the exact terms of the law as interpreted by the highest court in the state. As sworn officials, as board members we have no discretion in the interpretation of the medical law; we cannot usurp the functions of courts. We must, therefore, regulate all our official acts in accordance with the diverse sections of the medical act of this state. Such is the policy of the majority of the Board of Medical Examiners of California. The legislature in its wisdom and prudence resolved that "it shall require the affirmative vote of six members of said board to carry any resolution, to adopt any rule, pass any measure or to authorize the issuance of any certificate to practice medicine and surgery." In the face of such evidence will anyone suggest the possibility of a one-man policy in the Board of Examiners, or that a single member can dictate to his colleagues? The board has adhered so closely to this section of the law that absolutely nothing can be done outside a regular meeting of the board. Thus, upon the adjournment of a regular meeting the members lose their official identity and become mere citizens. The board in its extreme caution against individual power or influence has not even appointed an executive committee with power to act in the interval of regular sessions, a regrettable condition of affairs which causes no small hardship to those members residing near the scene of battle—in San Francisco.

The board's intimate adherence to the law on all occasions explains its immunity from mandamus proceedings, court reviews, etc.; it also explains its high position among boards. Compare the Board of Medical Examiners with the pharmacy, the dental, the optometry boards, all steeped in scandal or officially investigated. Unlike many other boards, municipal or state, the Board of Medical Examiners offers no temptations of a financial character; it bows to no influence, to no politics; its sole and constant guide is the medical act as interpreted by the courts. In the interpretation of points untouched by the Supreme Court the board has invariably consulted and abided by the decisions of those who made and framed the medical act; we refer to Dr. F. B. Carpenter and Mr. E. A. Taylor, the erstwhile attorney of the board and now professor in the law school at San Francisco.

To those timid minds, obstructionists and prophets of misfortune who assiduously predicted that the board's policy would bring about the downfall of the entire law, permit that we recall 4 incontrovertible facts:

1st. The recent favorable decision from the Supreme Court.

2nd. The recent adoption of the association standard by numerous states, either by amending their medical acts or by rule of their Boards of Examiners (Maryland, Nevada, Nebraska, Virginia, Wisconsin, Idaho, Georgia, Colorado, Indian Territory).

3rd. The silence and contempt of the legislature when confronted with the vicious standard lowering amendment to the present medical law presented by the faculty of the eclectic school of San Francisco.

4th. The earnest endorsement of the medical act by the homeopathic school and its loyal and constant coöperation with the regulars during the recent fight before the legislature.

Some misinformed parties have questioned the board's right to go behind the applicant's diploma. As usual these parties have not read the law. Section 5 reads as follows: "And he must accompany said diploma or license with an affidavit stating that he is the lawful possessor of the same, that he is the person therein named, and that the diploma or license was procured in the regular course either of instruction or examination, without fraud or misrepresentation of any kind. In addition to such affidavit, said board may hear such further evidence as in its discretion it may deem proper as to any of the matters embraced in said affidavit. *If it should appear from such evidence that said affidavit is untrue in any particular*, or if it should appear that the applicant is not of good moral character, *the application must be rejected*."

These provisions are fundamental and also mandatory. It is not for any board of examiners or medical society to pass upon the expediency of the standard. The legislature having provided the standard, and the Supreme Court having sustained it as constitutional, all that remains for the board is to apply it. The functions of the board are purely ministerial. The standard of the association is the rule and the measure of value, the yardstick by which the board measures the diplomas presented to it.

In the matter of the examination of candidates, the board's judgment is supreme. But in that of the medical education of the applicant, the legislature, not the board, is the supreme judge. The legislature has exacted a collegiate medical education as a condition precedent to the right to a certificate, and it has, by means of a scientific standard, taken from the medical colleges themselves, defined the nature and scope of the education, viz., that prescribed by the Association of American Medical Colleges. The standard exacted by the board is the minimum of requirements adopted by the association in 1899, consisting essentially of a definite pre-medical education, a fixed credit system and four college courses

of not less than six months each in four separate years. The standard in question is lower than that of many reputable colleges. In the north we note with pride at least 4 colleges whose requirements exceed those of the Association of American Medical Colleges. They are the Medical Department of the University of California, Hahnemann Medical College, Cooper Medical College and the Oakland College of Medicine.

It is the duty of the board to determine whether the applicant has complied with the legal requirements. The examination is not the test of this. The examination is the test of the knowledge of the applicant. The only test is the diploma. The medical act has not made the diploma the conclusive evidence of the fact, nor the affidavit of the applicant. In passing upon the diploma the board looks both at the form and the fact. The board first determines whether the requirements of the college are in no particular less than those of the association for any particular year, then goes a step farther and satisfies itself that the statements contained in the affidavit of the candidate are true, i. e., whether the diploma was obtained in the regular course of instruction, without fraud or misrepresentation. We are asked by our opponents to waive the express provisions of a statute which has been sustained by the Supreme Court. This would make us false to an oath of office.

Suffer that we again remind you of the fact that the legal educational standard in California was determined by medical colleges; it is their own medicine. Is the board to blame if this medicine prove bitter to some collegiate palates?

The minutes of the last meeting of the Confederation of Examining Boards show the policy of the confederation in the matter of diplomas. The new rules relating to reciprocity authorize the state boards (17 in number) not only to go behind diplomas, but to go behind evidence of preliminary education. The confederation makes the diploma merely a means of identification.

It may interest you to hear that the first Board of Examiners of California, in 1876, comprising such sterling characters as Henry Gibbons, Sr., Luke Robinson, Dr. Orme, Dr. Cushing, as alternate, set the example of investigating diplomas. In the minutes of 1877, carefully and most lucidly transcribed by Dr. Henry Gibbons, Jr., one may see the board's unanimous decision as to the urgent propriety of such investigation. The law of 1876 was then amended for the express purpose of permitting the board to go behind the diplomas of accredited colleges, it having been found necessary to do so. The provisions of the law of 1878 were appropriated bodily in the present medical act. Under the amended law of 1878 the Board of Examiners repeatedly resorted to said investigation, and as late as 1901 recourse was had to this remedy in order to prevent the issuance of licenses to certain holders of diplomas from legally chartered medical schools. The action of the board in the latter cases was sustained by the Superior Court of San Francisco. Since 1876 medical colleges of this state have enjoyed a monopoly of the practice of medicine. This power was delegated to them by the legislature, and constituted a trust. Under the present medical act, the legislature made certain explicit rules to restrain the arbitrary exercise of power on the part of the trust, i. e., the medical schools. The Board of Examiners not only enforces the law, but compels obedience to the expressed rules of reputable colleges, adopted and deemed by them absolutely necessary for the benefit of the profession and for the protection of the people. Wherein have medical colleges cause for complaint?

Reciprocity. Much has been written and said of interstate reciprocity. Many view the question from a sentimental standpoint, reasoning solely from the position of the aged practitioner, while many others, imbued with ideas of extreme democracy, favor the open door policy. Both sides seem to forget that interstate reciprocity is above all a legal question. Our medical act and our Supreme Court have determinded in plain language, under what conditions interstate reciprocal relations can be entertained:

1st. The law states: "Provided, however, that the legal requirements of said medical examining board shall have been *at the time of issuing such certificate* in no degree or particular less than those of California at *the time when such certificate shall be presented* for registration to the board created by this act; and provided further, that the provisions in this paragraph contained shall be held to apply to such of said medical examining boards as accept and register the certificates granted by this board without examination by them of the ones holding such certificates."

2nd. (From the Supreme Court decision.) "The act shows clearly that the main purpose is to admit no one to practice who has not passed such an examination, and the only effect of the last paragraph is to permit in some cases the substitution of the examination of another state board for that of our own."

Therefore, the old practitioners, those who were licensed otherwise than after examination at the hands of state boards are ineligible to reciprocity. Were California to reciprocate with Illinois, for instance, we could only accept those certificated in Illinois under the same conditions exacted in California at the time said certificates are presented. Our attempts to reciprocate with New York proved a dismal failure; the New York standard is far higher than ours in regard to preliminary education and college attendance. California might reciprocate with the Eclectic Board of Pennsylvania. In answer to Michigan's request for reciprocity the California board asked if it would receive in exchange the certificates of Michigan only or those of 16 other states with which Michigan has reciprocal relations. The gauntlet thus politely presented has never been picked up. Inasmuch as the question of reciprocity is a discretionary one in the California Medical Act we solicit your opinion; and, in order that you may judge impartially at least one important factor, we submit for your consideration a few figures extracted from the official records of a large number of state boards:

Record for 1904-1905.

Outside Examining Boards, 5,000 applicants.
California graduates examined in Washington, Oregon and Idaho, 17.
California graduates before Eastern and Middle State Boards, 4.
Outside graduates before California Board, 160.

The California records show that by interstate reciprocity we would get back 80% of those who failed to pass our examinations. Furthermore reciprocity would compel us to accept the numerous irregular and fraudulent diplomas previously rejected by the California Board but deemed immaculate by state boards more susceptible to the hypnotic influence of parchment. On the other hand we must not lose sight of our California colleges, all of which, with the exception of the Eclectic College, are toiling honestly, rapidly elevating their standard, curtailing their lists of matriculates rather than reduce their standard of preliminary educational requirements, making vast and frequent disbursements for the laboratories, increasing their teaching staff, multiplying their clinical facilities and extending their curriculum. Is not such a loyal demonstration on the part of the colleges of California deserving of some encouragement?

Dinner to Sir Patrick Manson.

The faculty of Cooper Medical College gave a dinner at the St. Francis Hotel, August 19th, to Sir Patrick Manson, the eminent London physician who has made a special study of tropical diseases, and who has just delivered the course of Lane Lectures on this subject.

REMARKS ON USES AND ABUSES OF THE X-RAY.*

By A. B. GROSSE, M. D., San Francisco.

AS OF recent years the use of the X-ray has been almost universally adopted by general practitioners, these remarks concerning certain observations, made in my practice during the last year, are addressed to them and not to the expert radiographer to whom they will simply represent the enumeration of some well known facts.

First, let us consider the operator and the danger to which he exposes himself if not properly protected. The use of the hand to gauge the condition of the tube has long been decried but up to date, and here I am speaking authoritatively, is still adhered to by a great number of men in this state, though they know that Mrs. Fleischmann-Aschheim has lost her arm, that Drs. Jones and Moffitt, a number of mechanics and many other pioneers in this work have sustained atrophies of skin, muscles and other injuries of this valuable member. A very simple makeshift is an articulated hand and arm (skeleton).

In all well equipped X-ray laboratories, the operator stands behind a lead screen with a lead glass lookout, or a system of mirrors, as the constant exposure to the oblique rays will after a time cause certain cumulative effects; i. e., brittleness of hair, dry and thin skin, loss in weight, vasomotor and digestive symptoms (nausea), and general neurasthenia. This has been frequently reported by French authors (but not considered authentic by German authorities). Another well marked symptom is necro, and even aspermia. I have had several patients during the year who when properly protected against the rays quickly recovered. Fluoroscopic work, if very frequently resorted to, is dangerous for the same reason, and there seems to be no protection possible in this case. (Dr. Cooper has adopted a mirror device which overcomes these obstacles.)

Patients should be protected by a lead screen with graduated diaphragmatic openings or, as in the institute of Lesser, by a series of lead plates.

Treatment.—Epithelioma is to my mind much too frequently treated by this means. We should not lose track of the fact that arsenic paste and the knife give excellent results. The X-ray should be used in certain selected cases where a good cosmetic result cannot otherwise be obtained. I believe it almost criminal that cancers of the lip with a beginning glandular involvement should be so treated. I saw 3 such cases during the last 12 months.

Hypertrichosis. During the last year 7 women consulted me who had been treated for this condition. The time elapsed since last treatment varying from 3 years to one month, and the symptoms varying from brawny pigmentation, telangiectasies, glossy skin, and atrophy with occasionally appearing large papules resulting in scars. These people were not all scientifically treated but at best we can never guard against possible pigmentation, telangiectasies and scleroderma-like changes. Hence, the prognosis should be guarded and the operator at least certain of his dosage. Sycosis para and non parasitaria does better under this treatment than any other.

Trychophitosis capitis, after total epilation of patches and surrounding areas by the X-ray, is cured much more rapidly and satisfactorily than by old methods.

Lupus vulgaris. My experience with this disease is limited to two cases which did not do well under X-ray treatment, and I would use the original or the Finsen-Reyn lamp in the future, or possibly the Hollander hot air treatment, which is simple and at anyone's disposal.

Lupus erythematosus. Three cases treated by this were not benefited but yielded to the tincture of iodine and quinine treatment.

Acne vulgaris. The same objections here hold as in hypertrichosis. In 3 inveterate cases that were uninfluenced by all treatment, the X-ray was resorted to with the result of one cure, and slight amelioration in another case.

Alopecia areata. I have treated one patient only, applying the X-ray to one patch and the light of the London lupus lamp to another, with a positive result for the modified Finsen and a negative from the X-ray.

Psoriasis. One of the first to treat this disease with the X-ray was Dr. J. Henry Barbat, who unfortunately did not publish the fact and claim priority. I used the ray successfully on one case of psoriasis universalis which did not react to any other treatment and to another case that had proved inveterate to all other treatment for a number of years. The X-ray should be resorted to only after other treatments have failed.

Occasional cases of eczema will be benefited by a few exposures, as it stops itching and checks weeping quite readily.

Verruccæ covering large areas I have removed by this means in 3 cases.

Pruritus ani. Most inveterate cases yield usually after 3 exposures, given once a week. This must be repeated in about 3 months. I have treated 11 cases without a single failure. But I wish here to give a word of warning; the testicles must be protected most scrupulously, as otherwise necro and aspermia may result, as in 2 of my patients. Even with due precaution certain symptoms in the sexual sphere will become evident. All cases of localized pruritus are legitimate objects for this treatment and will nearly always be benefited.

Before subjecting a patient to X-ray treatment, one should duly weigh the facts whether a possible oblique action from the use of the ray will be more serious and of more moment than the primary disease.

As to neurasthenic symptoms: Dr. Sherman related to me recently 2 cases in which the patients, after an exposure of the spine, developed well marked nausea and vomiting; in one case this happened after each exposure (2 exposures). One of my patients (lupus of the face) developed nausea, vomiting and headache after each treatment for 4 treatments. Then gradually these symptoms became less marked. Another patient with a large neavus on the abdomen evinced marked diarrhea and vomiting after the first two exposures. A patient treated for psoriasis complained of weight and fullness in abdomen, palpitation and general nervousness. I do not make the absolute claim that these symptoms are directly due to the ray, but believe that their occurrence is, to say the least, suggestive.

Possibly the greatest diagnostic triumph of the ray is that it is the only positive diagnostic factor in the diagnosis of renal calculus; of whatever composition the calculus may be. Rumpel in his classic monograph and atlas proved this, citing 20 odd cases, all substantiated by operation or section.

This work has become possible through the aid of the compression diaphragms of Albers-Schoenberg and other improvements of instrumentarium.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

INDICATIONS FOR ROENTGOTHERAPY.*

By W. LEHMANN, M. D., San Francisco.

SINCE the time Freund, in Vienna, and Pratt, in Chicago, tried to use the X-ray, the startling effect of which upon living tissue became apparent by the irritation, pigmentation and burnings accidentally produced, everybody applied this new therapeutic method to almost every disease. There are now really very few affections upon which the Roentgen rays have not been tried. Surely many mistakes have been made, yet these general attempts have shown us the power as well as the limits of the new agent, and made it possible to bring the methods under certain rules, and to outline its indications.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

The results differing very widely in different hands, it became clear, and was proved by experiments afterwards, that the difference in the outfit used, especially in the different tubes, had to be accounted for. Soon some investigators decided to use certain tubes, and claimed their method as the only correct one, thus arousing the opposition of other authorities. This quarrel, based on the different opinions about the effect of high and soft tubes, was marked by the names of Freund and Kienboeck. To-day the question is nearly settled, the tubes being used according to their peculiar properties. Soft or low tubes giving rays which to a certain degree will be absorbed by the skin, are to be used in superficial skin diseases. High tubes are to be employed in deep-seated or internal affections.

No tube sends out only penetrating rays or only superficially effective ones. We may avoid any effect upon the skin without interfering with, and indeed sometimes even increasing the deeper effect, by interposing aluminum or tinfoil. It needs, however, long experience to select the right tube in a given case. Likewise the quantity of effective rays of a tube can be changed by the regulation of the primary current or by rheostats within the secondary circuit.

In order to become independent of these difficulties and to base the exact dosage upon some objective means, numerous propositions have been made, and many apparatus, some of them very ingenious, have been invented.

You know that the insidious effect of the Roentgen rays upon living tissues, appearing after a shorter or a longer time of latency, is due to a certain accumulation. We have learned that this time of latency varies with the given dose, and accordingly the resulting effect. The sooner the reaction follows the treatment the more grave it is. The more serious the existing dermatitis the longer it lasts. A simple erythema-like redness, preceded usually by a brownish pigmentation, with or without swelling of the skin, with epilation and more or less pronounced subjective symptoms, like itching and burning, beginning 2 to 3 weeks after treatment, will stay only a few days to a week, will not produce any other symptoms, and is usually called a reaction of the first degree. Given the same quality of light, a double dose, viz., an exposure twice as long or a distance correspondingly smaller, will give a reaction of the second degree, beginning after about 10 days with the same symptoms, but soon followed by the formation of a large bulla, peeling off of the skin and serous secretion. While the first condition will disappear in 5 to 8 days, this second degree needs 2 weeks or more to heal up entirely. No scars will be formed, but sometimes later on a superficial atrophy of the skin, with teleangiectases, will be developed. Therefore the second degree of reaction, necessary in some instances, is to be avoided on a visible place or on a susceptible skin. A burning, an ulceration, needs a dose about 4 times as large as the first one, sometimes more, appears within 6 to 8 days, and is very refractious to any kind of treatment for months. Especially bad is the prognosis in cases which set in with a necrosis and demarcation. These latter conditions need not be discussed here, for they never are necessary for therapeutic purposes, and they never will or should occur nowadays if this new branch of modern therapy lies in trained hands.

In order to obtain the necessary reaction, it is not only the shortest but also the safest way to give the whole dose at once and then to wait. We may divide the dose, bearing in mind that the sum of the partial doses must be larger, but we have more difficulties in observing the reaction and determining the end of it. Cases in which the reaction of a certain degree, of the first, for instance, must be produced several times, cases in which several weeks are between the treatments, would be unnecessarily prolonged by these means. The Kienboeck treatment, the use of soft tubes and the production of the reaction necessary at one session, is therefore the given treatment in skin diseases.

The quality of rays from high tubes is not only different from soft ones in penetrating power, but also in their chemical and physiological effect. Both are similar but less marked, with the same primary current, with a similar brightness of light the chemical effect of a high tube upon a photographic plate is very much less than that of a low tube. Likewise the physiological and histological effects of high tubes are not only less marked upon the skin and more in the deeper tissues, according to the law that rays will act where they are absorbed, but even less than to be expected, in spite of the fact that some of these tissues seem to be more easily influenced by the Roentgen rays than the epidermis. The epidermis may not be seriously injured after a certain dose which would destroy entirely, for instance, the lymphoid cells of the spleen or the spermatogenous cells of the genital organs. In using a high tube in a case of leukemia, for example, the quantity of less penetrating rays would still be sufficient to produce deleterious effects on the skin by an exposure lasting for hours, and therefore we give shorter treatments more often repeated, in order to treat the supposed internal affection sufficiently while the epidermis may be restored in the time between the exposures.

Thus we treat blood diseases, leukemia, pseudoleukemia, anemia; we treat splenomegalie of different origin, etc. Abdominal, especially uterine tumors, have been influenced; sterility has been produced without operation in opportune cases. Tuberculosis of the lungs, the joints, even of the bones and glands, have been claimed to be improved. Careful and very reliable experiments have furnished us the physiological reasons for so doing, although some of the facts are not yet entirely cleared up. The results are sometimes very encouraging, though the reports of complete cures without recurrences are still to be expected. The question is not yet settled, and I would like to leave the details of this branch of the Roentgotherapy for another occasion because the members of a dermatological section are likely more interested in the treatment of skin diseases.

A dose corresponding to a reaction of the first degree or even less is sufficient to get a sedative effect or the epilation of diseased hairs. As sleeplessness very often will be stopped after short X-ray exposure, as neuralgic pains, especially in trigeminus neuralgia, sometimes disappear, so we may treat obstinate cases of pruritus with apparent results. A second time, or more often, the same dose may be necessary, but the result is remarkable even in cases which have resisted every other treatment. The pains and secretion of carcinomata become less; hyperidrosis and dysidrosis can be improved.

Affected hairs fall very much more rapidly than healthy ones; all kinds of hair diseases which need epilation, and which heretofore we have been obliged to subject to tiresome, painful and, for patient as well as physician, disagreeable procedures, can be treated in a nearly ideal way. Folliculitis, parasitic and non-parasitic sycosis, microsporia and favus are the main field. Often one treatment is sufficient, because after the epilation the cause is removed. Persistently recurrent sycosis should be rayed after the epilation to prevent new growth of hair for a longer time. (It has to be mentioned that the results in favus are usually unexpectedly quick.) For the same reasons the parasitic form of alopecia areata has been treated occasionally by the rays. If the dose was a correct one, all hairs grow again and the bald spots disappear. The remarkable and less risky results obtained by the light treatment, especially by the cold blue light, makes the latter method preferable in such cases.

Normal hairs and normal follicles are more resistent to the X-ray; the thin, pigmentless lanugo hairs often need a reaction of the second degree. Superficial atrophy of the skin, teleangiectases and

pigmentation which sometimes appear a long time after an apparently perfect result led Kienboeck to make the statement: "Hypertrichosis of women's faces should not be subjected to the modern Roentgotherapy."

The marked effect upon epithelial tissue is equally noticeable in growths; juvenile warts of the hands and the face disappear quickly; likewise papillomata have been treated successfully. Epitheliomata, cancroids and rodent ulcers are a well-known field of the rays, although the dose must be given several times, and must be increased sometimes to get a reaction of the second degree. After all experiences recurrences have been observed in less or at least not larger percentage than after operation, the method being painless and without danger, the cosmetic effect a comparatively very good one, and the rays can be applied on every place, even in the neighborhood of the eye, ear, nose and mouth, where surgical interference will cause a disfigurement; epitheliomata around the eye, with involvement of the conjunctiva and more or less destruction of the lids, must often be considered as inoperable. The Roentgen rays are here the method to be chosen.

More deeply seated carcinomata, subcutaneous nodules and glands, or metastases, can be influenced better with higher tubes and continued treatment. Perfect cures, however, are still rare, and are only possible in favorable cases; but the rays are of value before and after operation, especially after, to prevent recurrences; or in inoperable cases as a last hope with still better chances than any other means.

Similar results, which seem mainly favorable in combination with other methods, and some internal medication, like quinin or potassium iodid, can be expected in mycosis fungoides, actinomycosis, blastomycosis and even in leprous granulomata.

The same combined treatment is to be recommended in lupus erythematosus; besides the superficial forms of this disease, which can easily be removed by any means, the resistant varieties which until lately met a potent method only in Hollaender's quinin-iodid treatment, will show good results by adding the Roentgen rays. Although a certain saturation of the body with quinin seems practical, I found it valuable to apply the rays about 10 to 15 minutes after a 4 to 6 grain dose and immediately after painting the affected spot with iodin tincture.

Lupus vulgaris and tuberculous affections of the skin are the main field for Finsen's light therapy, which undoubtedly gives the best cosmetic results, and the least percentage of recurrences; hypertrophic, ulcerated and fungating forms generally react more promptly to the Roentgen rays. The ulcerated parts heal up, the hypertrophies shrink and become flatter, and the lupus nodules are more plainly visible in the paler and less infiltrated surroundings, more easily to diagnose and to treat. On account of the difficulties scars and pigmentations offer to the entrance of the chemical light rays, old cases, often treated by caustics, etc., are also better subjected to the X-ray. Likewise with the tuberculosis verrucosa cutis and similar forms.

Psoriasis, long-standing patches on the palms, usually offering very little chance to other treatment, may be removed by one or two doses of the first or less degree. Cases covering the whole body should only be treated when other therapeutic methods have failed. The impossibility of thorough protection of some organs and the general influences upon the body, the nature and consequences of which are not yet sufficiently cleared, should be borne in mind. In recent eruptions the rays are debarred like other irritants.

The results are good in parasitic affections of the skin, as in trichophytie, pityriasis rosea and versicolor, etc., but in the average case hardly superior to other methods. The same has to be said concerning acne and acne rosacea, while inveterated acne and acne necroticans can hardly be influenced more quickly and better by other methods than with the rays. I prefer, however, in these cases continued treatment with high tubes, avoiding reaction, which often causes new eruptions.

The highly recommended Roentgotherapy in eczema is of value in the moist varieties by applying small doses at a time, and is mainly indicated in long standing or continually recurring chronic dry squamous forms. Although the so-called Roentgen hand, the well known chronic inflammation of the skin of some X-ray worker's hands, presents just the form described, and although Lassar-Berlin claims results from subjecting such troubles to high tubes, no followers in this line can be mentioned—either the results have been unsatisfactory ones or the patients were already frightened by the rays, or the Roentgenhand occurs not as frequently as before.

Always in Roentgotherapy it must be kept in mind that not only different individuals react differently, but that some diseases, like favus and lupus, surprise us sometimes with an unusually quick irritation. Also patients with syphilitic history or alcoholic habits, people who are more than usually exposed to the bright sunlight, like sailors, are more inclined to stronger reaction.

Time does not permit me to go into the details of histological findings in cases treated with the rays, nor of the nature of the effect and its relation to the rays themselves, as interesting and important as they may be.

Concluding, therefore, I would like to recommend a more extensive use of this new therapeutic agent, but at the same time warn against a careless handling with dangerous overdosage and against leaving this two-edged sword to untrained hands.

DISCUSSION.

Dr. Albert Soiland, Los Angeles, said that the therapeutic field of usefulness of the X-ray was narrower than formerly, but none the less important; that the question of protection from untoward X-ray effects was of grave importance, especially to the operator; that he preferred the static machine and small induction coils, using hammer interrupters and storage batteries; that he covered nearly all the active surface of tube with 10 or 12 coats of white lead, leaving a window the size of a silver dollar through which the active rays emerged. This window could be covered with circles of soft lead foil, through the center of which the hole was made large enough to suit the individual lesion treated. These circles of lead were fastened over the tube with strips of adhesive plaster. These simple devices were working well in his practice.

Dr. Lehmann: Without taking up the question of protection, I only wish to state that the attempt of excluding unnecessary rays by painting or lead boxes, etc., has been made very often, but has been abandoned, as a thorough observation of the tube and its changeable qualities is rendered impossible thereby.

SYPHILITIC KERATODERMIA; REPORT OF A CASE SIMULATING ERYTHEMA KERATODES OR "BROOKES'S DISEASE."*

By ALEXANDER GARCEAU, M. D., San Francisco.

THE cutaneous disease known as erythema keratodes was first described by Brooke of Manchester, who reported 2 cases in 1892, and by him subjected to clinical research. Malcolm Morris described it as a rare form of sharply circumscribed erythema of the palms and soles, leading to over-growth of the horny tissue and accompanied by tenderness and edema, which interferes considerably with movement. Besides the lesions on the palms and soles, more or less erythematous nodules are seen on the back of the finger joints. (Malcolm Morris; Diseases of the Skin.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

1903.) Debreuilh of France published one case the following year, to differentiate it from keratodemia erythematosa symmetrica (Besnier). All the cases reported by Brooke and Debreuilh occurred in women. These are the only cases that I know of, that have been published to date. I take the liberty today in presenting the following clinical case to your observation:

On March 9, 1904, F. K., male, 33 years old, born in Ireland, occupation teamster, applied for treatment at the department of diseases of the skin at the Emanuel Polyclinic of San Francisco. He gave the following history:

FIG. A.

Since he was 8 years of age, at intervals of 4 to 5 years, he has had recurrent attacks of erythema of both hands and feet, followed by accumulations of scales. Previous attacks all responded to local treatment, but present condition has resisted all treatment, and he has been incapacitated from work for the last 8 weeks. There first appeared redness and nodules about the finger joints, which spread in patches, and finally coalesced in a large diffused patch on the palms of the hands. The erythematous area of the left hand extended over the entire palmar surface from one inch to one inch and a half of the wrist well up, and covering the entire palm. Thence up to the first phalangeal articulation. The thick incrustation being nodulated at the phalangeal, the meta-carpo phalangeal articulation, and at the wrist. The area on the right hand was very nearly the same as the left, but not quite so extensive, there being islands of normal tissue transversing the erythematous patches upon the dorsal surfaces.

FIG. B.

The incrustation extended between the under and middle fingers on both the right and the left hand, and upon the middle phalangeal pairs of the ring and the middle fingers of the right hand, and the meta-carpo phalangeal articulation of the little finger of the left hand. The feet were attacked about the same time. He gave a history of soft chancre 3 years ago; says he never suffered any secondary symptoms or underwent any antisyphilitic treatment.

On examination, found cicatricial tissue of a hard sore of the prepuce. Has a congenital hypertrophied tongue. The whole surface of the hands and feet are edematous and swollen, and covered with a thick horny growth. The nails of the hands have a deathlike pallor. There is tenderness and pain on pressure. The general appearance of the patient is good. Physical examination reveals no other pathological changes, and his general health has not been impaired other than his incapacity to attend to manual labor, on account of the great tenderness of the hands and feet.

A few words regarding the histopathology of this case. A biopsy was made from the heel of the right foot, where there was a large patch of horny erythematous tissue, but no marked changes were shown other than such as are generally found in any other angiokeratomata. There was no marked alteration in the prickle layer, except a pronounced dilatation of the blood vessels.

McLeod of London, in his practical hand book, "Pathology of the Skin," says of hypokeratoses that in both the small papular variety and the patchy type, the initial change is a dilatation of the blood vessels, for the lesions commerce in simple erythematous macules and the hyperkeratosis follows as a result of the vascular stasis. But the reason why hyperkeratosis should occur here, while the more pronounced dilatation of the vessels in psoriasis is associated instead with defective cornification and the formation of scales, is yet to be explained. This leads me to believe that all hyperkeratoses with the exception of those due to arsenic (and these might be included) are due to heredity or trophic disturbances. Heredity no doubt plays an important part in the etiology of these symmetrical distrophies, and Lesser, Valario, Startin, Dupré, Ballantyne and many others have given us valuable information on the subject. Only recently Ehlers and Neumann observed a large number of cases in the Island of Meleda in Dalmatia, and helped to differentiate it from leprosy, which it was supposed to simulate.

Little is known of the etiology of this disease. Brooke treated both of his patients with local applications of salicylic acid, and ichthyol internally. They were clinical cases, and in his report he states that after a certain period had elapsed the patients failed to return. So I conclude that there were no etiological researches made into these cases. Dubreuilh based his treatment of the case reported by him upon the theory that it was an abnormal tertiary syphilid, and cured his patient completely in a few weeks with biniodid of mercury and iodid potassium internally, and by local application of salicylic acid.

I treated my patient with good results upon the hypothesis of syphilis, giving him every 64 hours an intermuscular injection of 1% solution sozoiodolate of mercury for 4 consecutive weeks, diminishing the interval at the end of that time, to once in 5 days until his discharge, April 16th, 1904. Locally I applied nothing. He then returned to his work without any further inconvenience. He presented himself at my office June 4th, 1904, and was apparently cured. I have not seen him since. In differentiation of this case, I wish to include a keratodermia of both hands and one foot:

On February 23, 1905, J. S., German, aged 56, no occupation, presented himself at my clinic. The following is the short clinical history:

Palms of both hands and palmar surfaces of fingers slightly hyperemic, and show an overgrowth of horny tissue. No edema and no tenderness. The only inconvenience he has is the frequent appearance of fissures. In the region of the arch of the right foot extending towards the inner malcolus is a large erythematous spot covered with the same horny tissue. He had suffered from this condition for 6 months. He is being treated with Pasta Lassar locally, and 15 grains of potassium iodid 3 times a day with satisfactory results.

In looking over the literature of the keratodermiæ of the hands and feet, I have come across some interesting symmetrical lesions which I have decided to include in my paper, to add, as it were, some historical interest to the etiology of symmetrical keratodermiæ.

Mr. George Pernet, pathologist of the hospital of diseases of the skin in London, published in the *British Medical Journal*, Jan. 5th, 1902, page 194, a case under the title of "Leprosy and Congenital Sym-

metrical Keratodermia." It is extremely interesting to note a similar condition, namely a hereditary palmar and plantar kertodermia, is frequent in the Island of Melanda (Dalmatia) and that such cases were first taken for leprosy.

Ehlers and Neumann, who investigated the matter, found that it was not leprosy but the symmetrical affection before mentioned. That such a confusion should have existed is another proof of the view that a variety of skin affections were in years gone by, included under leprosy. A symmetrical palmar erythema was described by Dr. Albert Chalmers, assistant colonial surgeon of the Gold Coast Colony, West Africa, in the *Lancet*, Dec., 1899, page 1514.

A symmetrical erythema affecting the ulnar side of both hands is extremely common among Europeans residing on the Gold Coast of West Africa, and though

Fig. C.

a trivial matter, I have thought it worth while recording. The erythema is symmetrical affecting the ulnar side of the palm and hypothenar eminence. The color varies from a slight blush to a vivid scarlet. There is no evident abnormal thickening of the skin in this region, though small scales are frequently to be seen. The interest attaching itself to this erythema is that it is symmetrical in both hands, and persistent, and that a number of Europeans residing there have it. It is distinguished from the erythema keratodes described by Brooke in that it does not lead to an overgrowth of horny tissue, edema or tenderness. It is likewise distinct from the keratodermia erythematosa symmetrica of Besnier.

Besnier and Doyon truly say, you may pass 20 years of your medical life observing and collecting cases of erythema and each year will bring you forms which you have never before seen (Malcolm Morris, page 97). It is still an unsettled question beginning with erythema simplex and following in line with all other forms of erythema, whether they are due to an inhibition of the vasomotor nerves, or to other irritation to a point of exhaustion, and the production of an angio-neurosis. I am inclined to believe from the history and progress of my case that it was an indication of a disease both congenital and acquired. That the patient suffered no other symptoms of his acquired syphilis was probably due to a congenital acquisition, though he showed no other distrophy than an hypertrophied tongue. Of this I am certain, he responded immediately to an anti-syphilitic treatment, and was cured by mercurial injections.

I want to add here one word to the treatment of syphilids by intramuscular injection. It has been my good fortune recently to obtain the best results in my experience of the last 20 years, with the injections of sozoiodolate of mercury. I used the Crocker-Schwimmer modification in from ¼ to ½ grain every 48 hours, diminishing the intervals as best needed in the progress of the disease, and have had all the results of former uses of inunctions, pills, etc., without the inconvenience or disturbing accidents of the others. I have treated upward of 50 patients with different types of syphilis in the last year by this method with gratifying results and without accident. The salt is taken from the extra-pharmacopœia, and is the following: Di-iodo-paraphenolsulphonic acid containing 54% iodin, 7% sulphur, 20% phenol, has been combined with sodium, potassium, lead, mercury, etc., to form salts. The formula of this salt which I use now is identical with that used by Mr. Pernet of London, and is the following:

R	Hydrarg. Soziodolate	gr. III
	Sodii Iodidi	gr. VI
	Aq. Ster. et distill.	ʒ IV

20 m = ¼ gr.

The injections should be made in a well defined line and with a long spinal trochared needle, and placed deep into the gluteal muscle.

Before filling, the tubes are heated to 200° C. and allowed to cool. The salts are separately heated to 100° C. The water is sterilized. After the tubes are filled and sealed, they are heated on 3 successive days for one hour at a time to 100° C.

E. Besnier of Paris gives us four classifications of symmetrical keratodermiæ:

(1.) The symmetrical keratodermia of the extremities, congenital or hereditary.

(2.) The ordinary symmetrical keratodermia of the extremities which develops itself in early childhood. Erythemas due to irritation. Probably due to some central neurosis. The disease is a permanent one, and is aggravated in winter and by manual work. The hyperkeratosis is scattered, like so many islands, on the palmar surface of all the fingers.

(3.) The keratodermia of the extremities in spots, which show themselves in isolated and multiple surfaces on the palms of the hands and soles of the feet, and which like the preceding ones, is angioneurotic, and of central origin.

(4.) The keratodermia of the extremities, which can appear at any age, due to traumatic pressure. These are always temporary and curable, and are generally observed on those who do manual labor, to which they are unaccustomed.

DISCUSSION.

Dr. M. Krotoszyner, San Francisco: I have used, in the treatment of syphilis in the last 5 or 6 years, sublimate injections in a large number of cases and am very pleased to say that the results obtained with this method are so good that I did not need to look for another mercury-salt to be administered by injection. I generally use a 1% solution of sublimate, and the injection made with this concentration is generally borne well by patients and the results obtained, even in stubborn cases, are good. I find it useful to change from a course of inunction to a course of injections of sublimate. If patients can not come to the office daily I administer sublimate injections in higher concentrations. A 2% solution is generally borne well by patients who have become accustomed to the slight inconvenience incidental to the 1% solution. I have not seen, in my large experience, an abscess or gangrene follow this method of treatment. Of course certain points in technic have to be observed in order to obtain uniformly good results. I can safely say that stomatitis occurs rarer with this method than with injections of insoluble salts of which I also have had a large experience. I am satisfied that, by injections of sublimate, manifestations of secondary syphilis are removed quicker than by any other method.

Dr. W. Lehmann, San Francisco: The case presented by Dr. Garceau seems to me, according to the description and the beautiful photographs, a typical one of late syphilis. In all cases of keratoma and keratoid affections we should consider the possibility

or syphilis, of psoriasis, and in many instances, of chronic eczema, before we suppose an idiopathic keratoma. No question that it is very often difficult to differenciate between these conditions, but history, clinical appearance and the course of the disease will finally reveal the correct diagnosis. Dr. Garceau surely has gone the right way to give a mercurial treatment, especially in applying injections. Just these keratoma-like forms of late syphilis are generally very resistent and need an effective treatment; on the other hand, injections are not only the most accurate, but the most efficient way to apply mercury. I have no experience with the new solution praised by Dr. Garceau, but it seems to me that the combination with iodin should rather be more painful than other mercury injections, because all iodin injections are well known as producing pains. Of course it depends to a large degree upon a proper technic to avoid pains and trouble.

Dr. A. Garceau, San Francisco: The cases which I have reported, present few, or, I might say, none of the manifestations of psoriasis or eczema, and as the photographs show, a typical picture of unmistakable *keratodermiae symmetricae*. The quick response to mercurial injections of one of the cases leaves no doubt of causation.

In the first class of Besiner belong the cases I have presented. One of acquired syphilis and also probably inherited, and the other is a latent mannifestation of syphilis alone. The use of sozoiodolate of mercury in late manifestations of syphilis, I prefer to all other salts, because it is slowly absorbed and meets with quick response. In my hands and with the correct technic I have looked upon it as superior to any other mercurial injections that I have ever used, and I think I have tried them all. A look at the formula will convince you that it is the ideal mercuric preparation of the present day, and I have found it in all my cases all that I have claimed for it in this paper, safe, almost painless and producing quick results. There is an individualism in the treatment of syphilis which one must not overlook, and one which requires study and care in the selection of remedies at different stages of the disease. Experience with this salt and its results have given me full confidence of its great merit. It must be properly prepared as I have mentioned, and properly administered as I have advised, to meet with the approval of others.

A CASE OF POISONING FROM CEANOTHUS VELUTINUS, RESEMBLING RHUS POISONING.*

By R. F. ROONEY, M. D., Auburn.

Ceanothus velutinus Douglas. This shrub is distributed from the Columbia river to Central California, Nevada, Colorado and the Dakotas. The typical form is a large shrub with twigs from olive to brown, leaves ample, 3 nerved, broadly elliptical with somewhat cordate base to the lateral nerves, thence cuneate, very obtuse, dark green, glabrose, and usually heavily varnished above, minutely canescent beneath, 2 to 3 inches long, obtuse, the margin closely dentate-serrate; peduncles somewhat angled, minutely and rather sparsely puberulent; inflorescence ample, compound; flowers white; capsules subglobose, deeply lobed at the top, smooth or minutely roughened, nearly crestless. The whole plant is strongly aromatic scented. Family, Rhamnaceæ, or Buckhorn.

The variety *laevigatus* is the one most common to California and Southern Oregon. It becomes a small tree, with smooth leaves, lighter in color on the lower surface; inflorescence more ample and compound; capsules globose, larger, less lobed, smoother, somewhat crested. It is known in some localities as "Honey-dew," on account of the varnished appearance of the leaves; in others as "Buck-brush" or "Snow-brush." (This description was kindly furnished me by Miss Alice Eastwood of the California Academy of Sciences.)

This is a common shrub throughout the mountains of Northern California and Southern Oregon, and in places constitutes nearly the sole vegetation, covering acres of mountainside. It seems to thrive best at an elevation of 2,000 to 5,000 feet, and attains a luxurious growth at the latter altitude. In the Klamath Forest Reservation, where the following case was noted, it is everywhere plentiful, and forms almost impenetrable thickets acres in extent. It is not at all an attractive looking shrub, save for the distinction of its brightly varnished leaves.

The following observations were made in the latter part of August and the first days of September, 1904, while the writer was enjoying an outing in the mountains of Southern Oregon, on the shore of Klamath lake. The case here reported resembled one of violent Rhus poisoning, but that plant is never seen there, while "Honeydew" is everywhere present. This shrub is considered innocuous by the inhabitants of the localities in which it grows, and after inquiries in many directions, including the office of investigation of poisonous plants in the Department of Agriculture at Washington, and finding no similar case recorded, I felt warranted in presenting these notes to this society.

The violence of the symptoms, and the extensive areas of the body involved, exceeded those of any case of Rhus poisoning coming under my notice in many years' experience with the latter affection.

History: Male; white; born in England; age, 42 years; red-brown hair, and fair complexion; married, and father of 3 healthy children. Occupation, farmer, stage driver, and keeper of a resort for sportsmen, the latter being his present occupation. Has always been a very healthy and robust man. Never had any sexual or skin disease, nor any other ailment excepting scarlet fever, measles and whooping cough, which he had in childhood. During the past 3 summers, while driving a stage over the Cascade mountains, has had several attacks similar to the present one, but none so severe. Is certain that driving through a country covered more or less thickly with the plant in question, was the cause of all his previous attacks. The present one is attributed by him to driving a cow and calf through the forest, a distance of 5 miles, 6 days previously, and becoming very much heated in pursuit of the perverse animals, who led him through many thickets of the plant he had learned to dread.

Status Praesens: Pulse, 90; temperature, 102.5°; respiration, 20; tongue thickly coated with a white fur; nausea and complete anorexia; severe headache; constipation; great restlessness; feeling of great prostration, probably due to loss of sleep caused by the intolerable burning and itching of the affected areas. The face and neck, the front of the body down to a line midway between the umbilicus and pubes, the hands and forearms, and the legs from the ankles to the knees, were of a deep vivid red, and those parts were much thickened and swollen into rugosities. Close inspection showed a fine vesication, resembling that seen in Rhus poisoning, but no exudation, saving where his fingernails had been at work. The features were much distorted by the swelling, and the eyes almost completely closed. There was considerable delirium at night, and more or less during the day.

Being 45 miles from a drug store, and having no suitable remedies at hand, I gave him a hypodermatic injection of morphine, and a saline cathartic which I had with me, and ordered the constant application of cloths moistened in a solution of bicarbonate of soda, such as could be procured from the culinary department of the establishment. This relieved the acute suffering, and procured sleep, and for the following 10 days the patient slowly improved, and the skin began to peel off in scales and flakes, accompanied with constant itching and discomfort. At this period, the drainage from the kitchen having become deranged, he went out and assumed direction of repairs, and went into the forest to procure some suitable timbers, where he again came in contact with the cause of his malady, and when I left the locality, 3 days later, he was in bed with a fresh attack, confined to the exposed parts of the body.

There could be no question but the acute dermatitis was caused by this hitherto-considered innocuous shrub. It was probably the pollen of the plant that produced the dermatitis in this man, as it was the exposed surfaces that were affected. In the first instance, while chasing through the brush after the calf, and becoming greatly heated by his exertions,

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

he opened his garments at the neck, and gave access to the body, and the pollen lodging upon the moist skin had a large and suitable field for action. I found many specimens of the shrub still in bloom when I left the locality on September 4th, although the plant had seeded in the majority of cases.

STATE EXAMINATIONS, JULY AND AUGUST.

The following figures give the results of the examinations held by the State Board of Medical Examiners in Los Angeles and San Francisco in July, and in San Francisco in August, and they are rather worth study. It will be seen that the percentage of rejections is decidedly higher than heretofore, and that the standards of the board are being raised. Even yet our standards are far below many of the Eastern states, notably New York and New Jersey, and are not even up to the standards of the Confederation of State Licensing Boards. At the August meeting the minimum was raised from 50% to 60% (the minimum of the Confederation is 70%, and of the New York board it is 75%), and any candidate failing to get this mark in any single subject is rejected, no matter what his general average may be. The records seem to show decided weakness in medicine and in therapeutics, and the August examination disclosed a lamentable ignorance of obstetrics. This particular subject has been referred to elsewhere in the JOURNAL, and in this connection it may be said that the general average of the 42 papers was about 55%, and that the highest mark was something like 62%.

July Examinations.

PASSED.

Cooper Med. Coll., Calif., '05—80 1/9, 75, 84 6/9, 79 8/9, 80 5/9, 77 3/9, 76 3/9, 84 3/9, 75, 77 1/9, 81 5/9, 77 1/9, 76 5/9, 79 3/9, 75 1/9, 85 5/9, 77 8/9, 77 4/9, 75.
University of California, '05—84 3/9, 83 3/9, 77 1/9, 80 1/9, 75.
University of Southern California, '05—79 6/9, 77 6/9, 79 6/9, 81 1/9, 78 6/9, 80 7/9, 79 5/9, 75, 79 8/9, 79 7/9.
Coll. P. & S., Ill., '02—75 2/9.
Cornell Univ., N. Y., '05—80 7/9.
Johns Hopkins, Md., '05—82 4/9, 79 1/9.
Med. Coll. of Indiana, '98—79 1/9, 75.
Univ. & Bell. Hosp. Med. Coll., N. Y., '96.*
Northwestern Univ. Ill., '05—76 2/9.
Rush Med. Coll., Ill., '01—78 7/9; '03—83 1/9; '04—82, 76.
Univ. Minn., '02—75.

FAILED.

Coll. of P. & S., Los Angeles, Calif., '05—66 2/9, 69 6/9, 70 1/9, 77 8/9.†
Coll. of P. & S., San Francisco, Calif., '05—69 4/9, 72 1/9.
Cooper Med. Coll., Calif., '05—58 8/9, 71, 64 1/9, 18 1/9.
Hahnemann Med. Coll., Calif., '87—19 7/9; '01—61 6/9, 73 2/9.
University of Calif., '05—71 1/9, 72 6/9, 67.
University of Southern Calif., '02—65 5/9; '05—69 7/9. 72 1/9, 67 2/9, 69 1/9, 71 8/9, 70 5/9, 63 1/9, 19 1/9, 69 1/9.
Am. Coll. of M. & S., Ill., '05—56 3/9.
Chicago Med. Coll., Ill., '80—61 7/9.
Cleveland Med. Coll., Ohio, 95—60 1/9.
Coll. of P. & S., Ill., '03—71 6/9.
Coll. of P. & S., Md., '04—74.
Columbus Med. Coll. Ohio, '91—50 2/9.
Dartmouth Med. Coll., N. H., '00—19 4/9.
Denver & Gross Coll. of Med., Colo., '03—52 1/9; '05—72 2/9.
Harvard Univ., Mass., '00—72 1/9.
Kansas City Med. Coll., Mo., '94—55.
Marion-Simms-Beaumont Coll. of Med., Mo , '97—65 2/9.
Med. Coll. of Indiana, '03—61 6/9.
Missouri Med. Coll., Mo., '96—56 5/9; '87—64 4/9; '98—61 8/9.
Missouri Med. Coll., Mo., '77, and
Bell Hosp. Med. Coll., N. Y., '80—67 8/9.
Northwestern Univ., Ill., '99—66 4/9.
Rush Med. Coll., Ill., '89—64 2/9; '01—67 1/9.
Tulane Univ., La., '05—65 6/9.
Univ. of Louisville, Ky., '82—51 5/9.
Univ. of Maryland, '04—73 4/9.
Univ. of Michigan, '81—72 1/9; '89—59 7/9.
Univ. of New York, '84—72.
Univ. of Penn., 99—76 7/9.
Washington Univ., Mo., '03—74.

* Second examination, in one subject only, to remove a condition.
† Did not receive 50%, the minimum in one subject.

PERCENTAGES.

Of 101 applicants permitted to take the examination 54 failed and 47 passed, giving 53.4 % failures and 46.5 % passed. The figures for the California schools are as follows:
Cooper Medical Coll., passed 19; failed 4; passed 82.6 %.
Coll. of P. & S., Los Angeles, 6 failed; failed 100 %.
Hahnemann Med. Coll., San Francisco, 3 failed; failed 160 %.
University of California, passed 5; failed 3; passed 62.5 %.
University of Southern California, passed 10; failed 10; passed 50 %.

August Examinations.

PASSED.

Coll. Phys. & Surgs., S. F. Cal., '05—86 8/9.
Cooper Med. Coll., Cal., '05—78 5/9, 75 6/9.
Hahnemann Med. Coll. of the Pac. Cal., '05—79 5/9, 79, 78 1/9, 77, 76 3/9, 75 3/9, 75.
Univ. of Calif. '05—84 4/9, 80.
Coll. of Phys. & Surgs., Ind., '04—75.
Johns Hopkins Univ. Med. Dept. Md., '05—83 3/9.
Mich. Coll. of Med. & Surg., Mich. '94—75.
Northwestern Univ. Med. School, Ill., '05—76 6/9.
Society of Apothecaries, Eng. '89—77 3/9.
Trinity Univ. Canada, '97—88 4/9.
Univ. of Mich. Med. Dept. Mich. '84—83 1/9.
Univ. of Mo., Med. Dept. Mo., '05—75 6/9.

FAILED.

Coll. Phys. & Surgs. S. F., Cal., '04—73; '05—73, 70 3/9; '04—69 4/9; '05—65 3/9.
Hahnemann Med. Coll. of the Pac. Cal., '05—69 7/9.
Univ. of Southern Calif., '05—72 6/9; '04—67 7/9.
Chicago Homeopathic Med. Coll., Ill., '94—72 5/9.
Coll. of Med., Univ. of Nebr., '05—64 4/9.
Coll. Phys. & Surgs. Ill., '05—73.
Drake Univ. Coll. of Med., Iowa, '04—69 3/9.
Hering Med. Coll. & Hosp., Ill. '93—63 6/9.
Jefferson Med. Coll., Pa., '05—66 3/9; '92—63 1/9.
Jenner Med. Coll., Chicago, Ill., '00—68.
McGill Univ. Med. Dept., Canada, '01—70 1/9.
Queen's Univ., Canada, '88—62 1/9.
Rush Med. Coll., Ill., '82—71 8/9.
Univ. of Mich., '88—63 2/9; '83—59 1/9.
Univ. of City of N. Y., '82—67.

At the August examinations, 42 candidates applied for license, of whom 20 were successful and 22 rejected, giving 47.6 % passed and 52.4 % failed. The California schools showed the following results:
Cooper Medical College, 2 passed, 0 failed; passed 100%.
Coll. of P. & S., San Francisco, 1 passed, 5 failed; passed 16.7%.
Hahnemann Med. Coll., 7 passed, 1 failed; passed, 87.5%.
University of California, 2 passed, 0 failed; passed 100%.
University of Southern Calif., 0 passed, 2 failed; failed 100%.

Publication Committee on Advertising.

At its last meeting the Publication Committee decided to accept all future advertising contracts subject to the action of the Council on Pharmacy and Chemistry of the American Medical Association. The advertising pages of the JOURNAL, as at present, will also be submitted to the Council as soon as possible, and the opinion of the Council as to the propriety of publishing the advertisements now running will be requested.

Dr. Oscar N. Taylor of San Francisco left on August 20th to spend a year in medical study in Boston, Vienna and London.

THIRD ANNUAL MEETING OF THE PACIFIC ASSOCIATION OF RAILWAY SURGEONS.

Thursday, August 17th.

The meeting was called to order at 2 p. m. at Hotel St. Francis, San Francisco, by F. T. Adams, who introduced the president, N. H. Morrison, who then delivered the annual address.

After reading the minutes of the previous meeting and the reports of officers and committees, the following papers were presented:

"Multiple Tumors of the Brain. Operation and Recovery," W. B. Coffey, San Francisco.

"Some of the Traumatic Neurosis Following Injuries of the Head and Spinal Cord, in Connection With Railway Accidents," David Powell, Marysville.

"Some Observations Relative to Neurological Surgery," Wallace I. Terry, San Francisco.

"Medical Jurisprudence in Railway Surgery," W. O. Spencer, Huntington, Or.

"Fractures," J. C. Booth, Lebanon, Or.

"Typhoid Fever. Observations on 179 Cases Treated at the Southern Pacific Company Hospital, San Francisco, Particularly from the Standpoint of a Railway Physician," George R. Carson, San Francisco.

"The Inadequacies of the Present Methods for the Recognition of Distant Color Signals," Redmond Payne, San Francisco.

"Traumatic Hysteria," J. D. Grissim, San Jose.

"Shock, and How Best to Treat," O. Stansbury, Chico.

"Pathology and Treatment of Tetanus," T. C. McCleave, Berkeley.

"A Few Observations and Fewer Conclusions on Railway Surgery," H. Hildreth, Delano.

Friday, August 18th.

At 8:30 a. m. there was an exhibition of patients and surgical clinic at the Southern Pacific Company Hospital, Fourteenth and Mission streets, by members of the association.

Hotel St. Francis, 2 p. m.

"Gastro-Enterostomy in Non-Malignant Diseases of the Stomach and Duodenum," J. H. O'Connor, San Francisco.

"The Surgery of the Hand," Thomas L. Magee, San Diego.

"Prevention, Diagnosis and Treatment of Certain Eye Diseases and Injuries Occurring in Railway Employés," Robert W. Miller, Los Angeles.

"Transportation of the Injured," C. W. Kellogg, Kern.

"Some Points in Regard to the Early Diagnosis of Tuberculosis," C. C. Browning, Highland.

"The Open Dressing of Fractures, as the Experience of a Country Doctor," O. P. Askam, Mountain View.

"Traumatic Meningeal Abscess; Report of Cases," J. A. Colliver, San Bernardino.

"A Few Points in Surgical Technique," A. W. Morton, San Francisco.

"The Hypodermic Use of Ergot Outside of Its Use in Obstetrics," S. E. D. Pinniger, Lovelock, Nev.

"Septic Infections of the Extremities," C. L. Abbott, Point Richmond.

"The Hospital Car," W. Lee Moore, Verdi, Nev.

CALIFORNIA PUBLIC HEALTH ASSOCIATION.

Riverside, April 17, 1905.

Meeting was called to order at 11 A. M. by the President, Dr. Le Moyne Wills, of Los Angeles, who delivered an appropriate address of welcome, eloquently setting forth the great good to be done by the Association in the cause of sanitation and humanity, and predicting for it a long career of usefulness.

Dr. N. K. Foster made a report on legislation by giving a synopsis of the principal bills passed by the last legislature, and explaining the duties of different ones in relation to their enforcement.

At 12:20 adjournment was taken until 1:30 P. M.

At 1:30 P. M. the meeting was called to order by the President, and Dr. Cobb, past assistant surgeon United States Public Health and Marine Hospital Service, read a paper on "Flies as Carriers of Disease." This paper was full of breezy, stinging facts, and shows conclusively the close relations between the fly and disease. It is born and bred in filth, and covered with the foulest parts of its surroundings visits our table and shares with us our food, exercising great care to light upon the most delicate parts. Typhoid fever, cholera and tuberculosis are the most common diseases conveyed by the fly, but others may be so conveyed. Breeding in horse manure almost exclusively, his propagation can and should be controlled.

Dr. von Adelung commends the paper and its conciseness and general manner. Oakland has an ordinance that all stable manure must be in a covered box. He believes that we should inspect kitchens of restaurants where we eat; that it would have a salutary effect on the keeper, and we would have a less abundant supply of flies.

Dr. Hassler of San Francisco reported an epidemic of typhoid fever at the cement works near Suisun. Near the kitchen was a stable swarming with flies, with a bunk house close by, the balcony rail of which was used as a privy seat even for the sick. Cultures were made from cake taken from the table, and typhoid developed. By eliminating the flies the epidemic was stopped.

Dr. Browning of Highlands thinks it should be considered a disgrace to have flies around a house, and that this source of infection may be eliminated by a united effort of the people.

Dr. Cobb, in closing, said that flies almost wholly propagate in horse manure, and should be destroyed. The government will probably soon study the fly more thoroughly. He cited instances of cities controlling the flies by laws against their breeding places. Evanston, Ill., does not allow stables within certain limits in residence parts of the city, and all manure must be in closed receptacles; they have no flies. Sanitary stores are being started where goods are enclosed under glass, and they should be encouraged. In 4 days after flies ingested "foot and mouth disease" germs, their stomach contained millions of them, and these they will hold for many days, and one little speck dejected on food will infect it. To our army belongs the honor of discovering that flies carry typhoid fever, and to the Japs the honor of applying it. The intestinal tract of man has some resisting power to germs, but not to the extent some suppose. Hogs get cholera only through food, as probably cows get tuberculosis. In dogs fed on tuberculous bouillon in four hours the thoracic duct was found thronged with the tuberculous bacilli.

Dr. Blue of the United States Public Health and Marine Hospital Service having been called East, the next paper on "Disinfection" had to be passed.

Dr. Hassler of San Francisco read a paper on "Methods Employed in the Eradication of an Infectious Disease in the Chinese Quarter of San Francisco." This was a thorough and interesting history of the plague in San Francisco, and will be preserved as being the most authentic account of that trouble extant.

Dr. Bates complimented the sanitary authorities who had been so successful in stamping out this disease and stopping what might have been a dangerous epidemic. Dr. Cobb thought that the wiping out of this epidemic was a landmark in the handling of plague, and in the future all epidemics will be handled on the basis of what California did.

Dr. Cobb asks, "Does the flea carry the disease from the rat to the human?" Dr. Hassler replying, "We have taken fleas free from infection and allowed them to feed on infected rats, and obtained pure cultures from them."

Dr. Regensburger mentioned the fact that we had a governor who was in sympathy with the work, and gave the state board full power to work for the eradication of disease. Referring to Dr. Blue and his

work, he thinks he should be recognized, and moved a vote of thanks to be sent through the surgeon general. Carried, and the following was sent:

"*Resolved*, That the thanks of the California Public Health Association be extended to Past Assistant Surgeon Dr. Rupert Blue for the efficient services rendered the state in combatting and stamping out bubouic plague;

"*Resolved*, That the above resolution of thanks be sent to General Wyman of the Public Health and Mariue Hospital Service, and through him be forwarded to Dr. Blue."

A paper hy Hon. H. A. Mason on "The Septic Tank as a Means of Sewage Purification," was read by the Secretary, Dr. Foster. He described the tank and its workings, giving many interesting facts and details, and asking some important questions.

Dr. Browning of Highlands read a paper on "State Control of Tuberculosis." He treated this ably, and no short report can do it justice. He claims the careless consumptive alone is dangerous. The state reports treating of sanitation should reach every teacher as well as every health officer. The state should have a sanatorium to treat cases before they become incurable. The outdoor treatment was discussed; also to have each county sustain a tuberculosis home.

Election of officers. Dr. Regensburger nominated Dr. von Adelung of Oakland for President. This was seconded, and carried unanimously. Dr. Foster nominated Dr. Wm. Simpson of San Jose for Vice President. Dr. Osborne seconded, and he was elected unanimously. Dr. Foster was elected Secretary and Treasurer.

Adjourned to meet at the call of the Board of Directors.

REPORT OF SPECIAL COMMITTEE AT THE PORTLAND MEETING.

The following is the full report of the special reference committee to whicn was referred the reports of officers or the A. M. A. and the resolutions pertaining to nostrums, advertising, etc.:

The president called for the report of the committee on reports of officers, which was read by Dr. Frank Billings, Chicago.

Discussion of address to delegates by President Musser.

Your committee recommends that the suggestions of the president be referred to the respective committees to which they should naturally go.

1. The suggestion for the possible improvement of scientific work of the sections to the reference committee on sections and section work.

On motion of J. Garland Sherrill, Kentucky, the suggestion was so referred.

2. The suggestious as to place of holding the annual sessions to the committee on transportation and place of session.

On motion of Dr. A. E. Baldwin, this part of the report was concurred in, and the suggestion was so referred.

The committee recommends that the address of the president be printed in the *Journal*.

It was moved and seconded that this recommendation be concurred in. Carried.

Discussion of report of the secretary.

1. We recommend that the request of the secretary of the American Electro-Therapeutic Association for the establishment of a section on electrotherapeutics, as quoted in the letter to Secretary Simmons, be referred to the committee ou sections and section work.

2. We recommend the plan of organization with the system of reporting of the names of newly elected, deceased and recently resigned or suspended members of the county societies by the secretary of the county to the secretary of the state society, and the prompt transmission of the information by the latter to the office of the general secretary. We recommend, too, that the plan of transmission of this information as indicated by the general secretary, as well as the maintenance of a permanent record in the form of a card index of the members of the county, state and national associations, should be continued.

3. We concur in and recommed that the suggestion of the secretary for the establishmeut of a Councilors' Bulletin be carried out.

4. We also recommend the Biographical Card Index which has been established by the secretary, and recommend that the work be continued.

5. We recommend that the report of the secretary be published in the *Journal*.

Dr. E. Eliot Harris, New York, moved the adoption of the report of the committee on the secretary's report. Seconded by Dr. C. S. Bacon, Chicago, and carried.

Discussion of board of trustees' report.

1. We congratulate the association on the excellent financial condition shown, and recommeud a vote of thanks to the board of trustees for the judicious, conservative and wise management of the property and finances of this orgauizatiou. We also recommed that the report be published in the *Journal*.

2. Report of the board of trustees on the creation of the Council of Pharmacy and Chemistry is, in the opinion of your committee, the most important and effective measure ever undertaken by this association to rid the profession of the abuse of the nostrum evil. The personnel of the council is of such a character as to create a feeling of confidence that the proposed work will be done thoroughly, conscientiously and justly. The publication of the results of the work of the council in book form with annual editions will afford a source of information of inestimable value to the profession.

3. Therefore, we recommend that the House of Delegates indorse the action of the board of trustees in the creation of the Council on Pharmacy and Chemistry; that the trustees be requested to devise a plan through which the council may be made permanent, and that the trustees request the Secretary of Agriculture of the United States government to give the Council on Pharmacy and Chemistry recognitiou by authorizing the Bureau of Chemistry to co-operate with the council in its work.

4. We indorse the work already performed by the Council on Pharmacy and Chemistry in the formulation of rules governing the mode of selection of articles to be investigated and the publication of results already obtained.

5. We recommend the publication in book form of a list of the preparations not in the pharmacopeia that are approved by the Couucil on Pharmacy aud Chemistry.

6. We indorse the underlyiug sentiments of the preamble and resolutions presented by the committee of the State Medical Society of Missouri, of those presented by the section on practice of medicine, aud of the resolution presented by Dr. Jones of California.

7. We recommend the adoption of the following motions:

Resolved, That it is reprehensible for the members of this organization to prescribe or use nostrums, aud that we request the board of trustees not to advertise any nostrums in the columns of the *Journal*.

Resolved, That we request the board of trustees hereafter to insert in the *Journal* with each advertisement the formulas of remedies which may have been favorably passed on by the Couucil of Pharmacy and Chemistry for advertisement.

On motion, these recommendations of the commit tee were concurred in.

8. (a) Your committee is unanimous in the opinion that a blue book, that is, a directory containing the names only of the members of the organization, would not meet the needs of the members, and that a directory of that character would be looked on by those members of the professiou outside of the organization in the nature of a boycott of the outsiders, and would, therefore, be prejudicial to the best interests of the association, aud would do much to defeat further organization aud increase of membership.

(b) On the other hand, we are of the unanimous opinion that the publication annually of a National Medical Directory of the names of all licentiates, with an abbreviated biography of each individual, with the members of the organization differentiated by a form of type or some other device which would afford a directory with the facilities which the *Journal* office commands, of accurate data, would be of great value in the seuse of a directory, and would be of great aid in effecting more complete organization of the profession. We believe it would be a source of income to the association, and, although we believe that the association should not compete in commercial enterprises for finaucial gain, we look on the publication of a directory as an object quite as free from commercialism as the publicatiou of the *Journal*.

(c) We, therefore, indorse the actiou of the board of trustees in the purchase of the Standard Directory, and recommeud that the board publish a complete directory on the plant outlined by them.

Furthermore, we recommend that the trustees may also furnish any part of this directory to state and county societies on application.

Dr. J. N. McCormack, Kentucky, moved the adoption of the recommendations of the committee. Seconded by Dr. Sherrill.

After some discussion, Dr. Eugene Smith, Michigan, moved that that portion of the report which relates to the publication of a medical directory by the association be referred to the board of trustees to report next year. Seconded by Dr. Ferguson, New York.

After further discussion, which was participated in by Drs. Smith, Michigan; Ferguson, New York; Happel, Tennessee; Bacon, Chicago; Harris, New York, Dr. Ferguson withdrew his opposition to the original motion.

Dr. G. Garland Sherrill, Kentucky, moved as a substitute that so much of the report as pertains to the recommendations of the committee be adopted, striking out all that relates to the purchase of a medical directory. Seconded.

After discussion by Drs. Harris, Illinois; Chassaignac, Louisiana; Baldwin, Illinois, there were calls for the previous question, and, as there was some doubt as to what this really was, the chairman stated that the original motion of Dr. McCormack was to adopt the recommendations of the committee; that Dr. Sherrill had moved as a substitute that the recommendations of the committee be concurred in, with the exception of that part which relates to the purchase ot a directory.

With this explanation, the president then put the substitute, and, as there was some doubt manifested as to whether it was carried or not, the roll was called by the secretary, with the result that there were 27 votes cast in favor of the substitute and 56 against it.

The president thercon declared the substitute lost.

Dr. Harris, New York, said that, inasmuch as there had been a free discussion on the question as to whether the association should publish a medical directory or not, he desired now to move the previous question on the adoption of the report of the committee as read, which was seconded and carried, and the recommendations of the committee were adopted.

Dr. Billings then read the final part of the report of the committee which pertains to national incorporation.

We recommend that this part of the report be referred to the committee on national legislation, as advised by the committee on national incorporation.

FRANK BILLINGS, Chairman,
THOMAS D. COLEMAN,
C. J. SMITH,
GEORGE W. GUTHRIE,
PHILLIP MILLS JONES.

Dr. Sherrill, Kentucky, moved that the report of the committee be now adopted as a whole, which was seconded and carried.

New Terms.

To the Editor of the STATE JOURNAL: In reference to the introductory words of my paper, "Why Should Roentgology Be Practiced Only by the Physician?" published in the JOURNAL, Juue, 1905, I would like to call the attention of the colleagues to the resolutious adopted by the International Roentgen Congress, Berlin, May 1-3, 1905, which read, that for a general understanding the following terms ought to be used:

Roeutgeuology.
Roentgenography.
Roeutgeuoscopy.
Roentgeuodiagnosis:
Roentgenotherapy.
Orthoroentgenoscopy.
Orthoroentgenophotography.

Yours very truly, W. LEHMANN.

Notification of Tuberculosis.

The committee on tuberculosis of the Medical Society of the State of Califoruia believes the following represeuts the most advanced thought upou the subject of notification in pulmonary tuberculosis:

First—Tuberculosis is a disease commuuicated from one individual to another because of the violation ot simple rules of hygieue and sanitation, either through ignorance or willfulness, usually the former.

Secoud—In order to wage an effective warfare against this disease, the individual suffering from tuberculosis must know that he has the disease, must be instructed as to its nature and as to what measures are necessary to prevent its spread, and must carry them out with care. After removal or death, the apartments previously occupied must be thoroughly cleansed aud disinfected.

Third—The supervision of such measures rightfully belongs to the Department of Health, and in order for this department to have such supervision, it must be able to locate those suffering from the disease, which can only come about by requiring all cases to be reported.

Fourth—The notificatiou of tuberculosis should be especially safeguarded so as not to work unnecessary hardship upon those who are afflicted. Consequently the books containing the record of the names of those suffering from the disease should be open to the inspection of none but the health authorities. This protects not only the patient, but the physician as well, and removes the usual objection urged by physicians against notification. The purpose of notification is not for quarantine, nor for placarding the house occupied, but simply to insure that proper instructions are given and proper precautions taken.

Fifth—Special instructious should be printed by the health board. These should be furnished to physicians, who should give them to all patients suffering from tuberculosis. When the physician notifies the department, he should signify whether he will instruct the patient and friends himself as to the methods of preventing the disease, or whether he wishes the department to do this. In this way there would be no meddling with private patients, unless at the physician's request, and consequently there would be no clash between physician and health board. When physicians learn that notification can be carried out without interfering with the liberty of their patients, they feel friendly to the plan. When the public learns that it is done for their protection, and that it entails no hardship, they, too, will take readily to it.

Notification is in harmony with the advanced thought on the prevention of tuberculosis, and will be adopted generally sooner or later, the time depending upon the importance given the subject in the various localities.

F. M. POTTENGER,
JNO. C. KING,
GEORGE L. COLE,
EDWARD VON ADELUNG,
GEORGE H. EVANS.

COUNTY SOCIETIES.

San Joaquin County.

The last regular meeting of the San Joaquin County Medical Society was held at the residence of Dr. Margaret H. Smyth, one of the physicians in the female department of the Stockton State Hospital, President R. B. Knight in the chair. Members present: Drs. A. W. Hoisholt, R. B. Knight, S. W. R. Langdon, Minerva Goodman, J. D. Young, Asa Clark, H. E. Sanderson, Margaret H. Smyth, E. A. Arthur, Charles R. Harry and Barton J. Powell. Dr. Blackmun was a guest.

Dr. Smyth presented a paper on "Tuberculosis of the Kidney." During the past few years in the service of the State Hospital, the doctor has come in contact with several of these cases, and prepared carefully written reports of the same. The discussion was opened by Dr. A. W. Hoisholt, who was followed by all members present. The name of Dr. L. Olivieri was presented for membership.

The next regular meeting will be held in September, there being no meetings of the San Joaquin County Medical Society in midsummer. After adjournment, Dr. Smyth banqueted the doctors present.

BARTON J. POWELL, Secretary.

Orange County.

The Orange County Medical Association met in regular session, with twelve members present. Resolutions were adopted condemning lodge or contract practice, and a committee was appointed to draft an amendment to the by-laws, prescribing the punishment for offenders in this matter.

The following report was presented and adopted:

"We, your committee, beg to report: That it is a violation of the ethics of the medical profession for any member of the profession to contract to do lodge or other contract practice where the compensation is a stated sum for a definite period per capita, and we respectfully recommend that the by-laws of this society be amended to impose suitable punishment for offenders in this respect.

"H. S. GORDON,
"J. L. DRYER,
"J. M. BURLEW,
"Committee."

Dr. F. M. Bruner read the paper of the evening, entitled, "Shock; Its Cause and Treatment." The doctor reported three fatal cases of shock following abdominal operations. The paper was carefully prepared and very instructive; the discussion was also very interesting, from the fact of the diversity of opinions in regard to the treatment of shock.

H. S. GORDON, Secretary.

Santa Clara County.

The meeting of the Santa Clara County Medical Society, held on the evening of July 19th last, in the parlors of the Bristol Hotel, San Jose, was one of unusual interest, and was well attended, the following members being present: Asay (president) in the chair; Burns, Southworth, Lusson, Belknap, Wagner, McNary, Paterson, Harris, Whiffen, Saph and Osborne (secretary).

Dr. M. F. Stirling, a visitor, addressed the society on the subject of "The Scientific Feeding and Outdoor Treatment of Tubercular Patients," and during the course of her remarks explained at some length the aims and methods of the "Hill-Side Sanitarium," established by her at Los Gatos, and now open for the reception of patients.

Dr. Frank Paterson introduced a case of metastatic sarcomata following primary sarcoma of uterus. Record of case showed hysterectomy and various other unsuccessful operative efforts to eradicate the disease. The right mammary gland was the site of most troublesome tumors. Secondary growths involved superficial lymphatics and lymphatics of dorsal region and the axilla. Operation sought by patient, but expediency of such procedure considered doubtful, which opinion was concurred in by the members present.

The amendment to the by-laws proposed by Dr. Wright at the last meeting was called up, and after discussion was, on motion of Dr. Southworth, seconded by Dr. Harris, amended to read as follows:

Article 1, Section 3. The election of officers shall take place at the regular meeting in December of each year, on which occasion an oration or essay shall be delivered by the retiring president; provided, that our present elected and appointed officers shall hold office until the regular monthly meeting in December, 1906, and until their successors are duly elected and installed.

The amendment as amended was unanimously adopted.

Applications for membership were received from Dr. W. W. Fraser of San Jose and Dr. W. C. Chilson of Santa Clara, and were referred to the committee on admissions.

The condition of the society's finances was discussed, but no action taken, pending report from the finance committee.

The paper of the evening was presented by Dr. Whiffen. Subject, "Extra-Uterine Pregnancy." The paper proved to be an exceedingly interesting treatment of the subject in outline, and was illustrated by postmortem specimens from one of the cases cited. Discussion by Drs. McNary, Lusson, Southworth and Wagner.

The next regular meeting of the society will be held August 16, 1905, in the parlors of the Bristol Hotel, San Jose, convening at the hour of 8 o'clock p. m. The paper of the evening will be by Dr. E. F. Holbrook. Subject, "Tubercular Adenitis." Discussion to be opened by Dr. H. E. Brown.

A. E. OSBORNE, Secretary.

San Francisco County.

Meeting called to order August 8th, at 8:55 p. m., Dr. Blumer of the executive committee taking the chair in the absence of the president. Minutes of the last meeting read and approved. Proposal for membership, Dr. Max Magnus. The committee on admissions reported the following elected to membership: Dr. Joseph Artigues, Dr. Ernest D. Chipman, Dr. C. E. Leithead.

Dr. Lehmann, demonstrating orthoroentgenograph.

Every time I have had the opportunity of demonstrating the Cooper College Roentgen Department to some colleagues, I have observed the greatest interest was taken in this apparatus, called the orthodiagraph, or, according to the resolutions adopted by the International Roentgen Congress in Berlin last April, the orthoroentgenograph; so I thought I would bring it before this society. I am not going to take up your time extensively, but I think it will be necessary to give some short explanations before the demonstration.

In order to make screen examinations, it is necessary that the screen and the tube should be opposite each other, and the object to be examined, within a straight line connecting both. A simple drawing will show that otherwise the shadows of the part examined would be distorted, and would not correspond at all to the part.

Even if the tube is in a straight position, the shadow is much enlarged, owing to the fact that the Roentgen rays, sent out from one point of the target, of the anti-kathode, are diverging in cone shape. Thus we never get the shadow of the real size of the part examined. If we focus the tube to the right margin of the heart outline, leaving a mark on the screen, and move then the tube to the left, focusing it to the left margin of the heart, we get the width of the heart. The same we can do moving the tube in a vertical direction. On this principle Hoffman, in 1899, has constructed a quite bulky apparatus with a system of vertical and horizontal wires, each a certain distance

from the other (for measurement), and a movable tube behind. In this way he was able to roughly outline the heart and determine the size of it. The principle of the orthoroentgenograph consists of a fork-like connection between screen and tube, which is movable on a stand, so that in moving the screen the tube is going exactly the same way. This principle was brought out first by Moritz in 1900. The middle point of the screen focused to the target, we draw the outlines of the heart with the same perpendicular central ray, and can mark this heart figure by means of a pencil attached to the screen, upon the body of the patient or upon a piece of paper fixed on a board between plate and screen. There is one difficulty: a patient, especially a patient in a bad condition, is not able to stand perfectly steady for the time required for an examination. In these cases we put the patient on a table or on a simple stretcher, and fix the tube underneath this bed. This is very nicely arranged in this apparatus. I only need to loosen a screw, and turn the whole apparatus into a horizontal position.

A help in determining the outlines of the heart very exactly is a diaphragm fixed between the tube and the patient, so that only a small circle of the screen is lighted, and only the margin of the heart in contrast to the adjoining transparency of the lungs can be seen. Immelmann, in Berlin, devised a very simple means of representing the real size of the heart in an objective way. Of course, the orthoroentgenograph in itself is very much more objective than the percussion. Everyone has his own way of percussing the heart. It is very seldom that two men are able to find exactly the same outlines. With this instrument we are very much less subject to these variations. Still it needs quite an experience before we get the outlines of the heart in the same patient exactly the same, at different times. If we fix on the chest of the patient a photographic plate while we make the examination with the diaphragm named, we get at the same time a test of the findings on the photographic plate. This sounds easy, but it is somewhat difficult.

In making a photograph of the heart it is necessary that the patient hold the breath, and we go around the heart as quickly as possible. But even the strongest coil and tube will seldom furnish a good picture in these few seconds. This is still the difficulty which must be overcome to give a good picture of the heart, and thereby the best objective means of measuring its size. It has been proven that the orthoroentgenographic drawing corresponds exactly to the real size of the heart, by experimental tests.

The apparatus is not only valuable for the examination of the heart, but has been valuable in cases of aneurysm, where we are able to determine whether the aneurysm is growing or becoming smaller. We can determine the exact size of an inter-lobar empyema, etc. Lately it has been advised to make the orthoroentgenographic examination a foundation of the percussion of the heart. Owing to the fact that even among authorities there are never two persons who get the same outlines of the heart, it has been advised to make this examination first, trying to get its exact outlines by percussion. It needs a certain way of percussing, and we ought to become accustomed to it, and should teach students this way of percussion, allowing them to first make the orthoroentgenographic examination, and then compare their results by percussion.

Dr. Grosse—This instrument is of great value, but there is this much to say, that there is a danger in not protecting yourself, and we all know that protection is of the greatest importance. The dangerous action of the ray has been discussed very much lately, and I do not think it would be wise for any man to use this instrument very frequently, because you are more exposed, the eye focused to the target, than in any other examination.

Dr. Schmoll—I have had, in a number of cases, the opportunity of comparing the results of the clinical percussion with the results of the orthoroentgenograph. I have been astonished by the accuracy of the latter. We have all worked out our own methods for heart percussion, and we are able to get good results by adhering always to the same technic. We can draw some conclusions as to the size of the right and left heart, but if we try to make out the real size of the heart we have to modify our methods of percussion in comparing it in each case with the results of the orthoroentgenograph.

Dr. Bárbat—I would like to ask how these pictures are made, because I do not understand how you are going to get a picture in the manner described. Will the picture show anything definite when either the plate is moved or the patient is moved?

Dr. Lehmann—I will not enter into discussion of further details of the percussion in comparison to the orthoroentgenographic examination because I am not, and claim not to be an internal medicine man. With regard to the pictures taken, the patient is standing perfectly quiet or lying still on the stretcher, and the photographic plate is fixed on his chest with adhesive straps. The patient keeps his chest quiet in forced inspiration, then tube and screen are moved around the heart outlines. I am glad Dr. Grosse spoke about the protection. This is a very serious matter, especially lately, as a number of reports have been compiled which show that the X-ray work is really a very dangerous profession. One man has stated that three-fourths of all X-ray men are sterile, as the spermatogenous cells are like other young or growing epithelioid cells, very much more susceptible, and become more readily affected by the rays than even the epithelial cells of the epidermis. I am aware of these dangers since several years, and have protected myself from the beginning in the following way: Behind a heavy wooden, right-angled screen (6x6 feet), covered with heavy sheet lead of at least one-sixteenth of an inch in thickness, I have all my switches. There is a little window, which consists of lead glass, in this wall, through which I can observe my tube and the patient. Thus I am not exposed to the rays at all in giving treatments or in making plates. In screen examinations we are less exposed to the rays than the patient, as we get only those rays which have gone through the patient after partial absorption, and as we are more distant from the tube. But I do not make screen examinations unless it is entirely necessary. In examining fractures or in controlling the apposition through the cast or splint, I prefer plates which give better details and need a shorter action of the tube. Of course, in examinations of internal troubles, in showing organs in motion, like heart and diaphragm, examinations are unavoidable. In those few cases I am not protected, but I am going to provide myself.

"Some Surgical Aspects of Empyema, With Report of a Case," by Dr. Brunn.

Dr. Sherman, discussing Dr. Brunn's paper: I had the good fortune to see this patient with Dr. Brunn, and to be able to discuss some of the points with him. We disagreed only on the probability of a satisfactory healing if he permitted the thorax to close. I doubted that it could be obtained; but he permitted it to heal, and I am glad of his success. Very shortly afterwards I had a case which permitted me to go over the same ground with the use of negative pressure, and I would like to discuss this.

The patient, a woman, had a tuberculous empyema, but in the first place I was mistaken in my diagnosis, for she had no pulmonary symptoms nor thoracic signs whatever. She was very thin, with a history of an old pleurisy, but was apparently sound down to the level of the liver, except for the thick pleura. Her liver dullness could be percussed out in normal extent, and below the border of the ribs was a palpable tumor, which was suggestive of some trouble with her gall-bladder. After many examinations and careful consideration, I opened the abdomen and discovered her liver pressed down below the edge of the ribs, folded up and crushed forward so that only a certain

portion was in contact with the abdominal wall, giving limited dullness and resistance as of a gall-bladder tumor. The diaphragm was convexed downwards instead of upwards. I had made a mistake in the diagnosis, and was really dealing with an empyema. I closed up that wound and tried to empty the empyema with large needles and trocars, but failed, and then did a thorectomy, taking out a piece of rib. I succeeded in keeping my wound sterile for a week, washing it out at definite intervals with 1 per M of formalin in salt solution. At the end of that time I instituted the negative air pressure by the method of Cheesman. If you refer to the numbers of the *Journal of the American Medical Association* in February (?) you will see that Dr. Cheesman used, to make his connection between his aspiration apparatus and the pleural cavity, a bicycle valve stem, to which a rubber tube was attached. There is a flare, like the end of a trumpet, on one end of the stem, and it is made of rigid rubber. Cheesman put two together, flare to flare, and fastened them to each other by rubber cement. Then he made his opening in the chest wall, passed one end of this double-ended trumpet into the chest, and attached his apparatus to the end projecting. The adhesion to the chest wall he made by means of zinc ointment and strapping. I tried using cataplasma kaolini, but I found out that after 24 hours it dried and crumbled up, and I got air leakage. Then I used rubber dam, taking two pieces, putting one on the chest wall and making an opening in it corresponding with the opening in the chest wall. Through this I thrust the end of this double valve stem and forced it firmly in. The second piece of rubber dam over the first, and over that many strappings, so that it always held down. There is an advantage over cataplasma kaolini, or zinc ointment, or collodium, in that the plaster adheres in the presence of moisture for a certain length of time.

Now, at the time that this was put on, the amount of discharge was very little indeed. Washing would give 30 or 50 cc. of fluid only. There was practically a pneumo-thorax with an opening, and not much of the secretion on the inner wall. After the negative pressure was established I had a definite increase in the amount of fluid, and I took that to mean there was a diapedasis or diaphoresis of the fluid in the blood vessels in the lining membrane into the pleural cavity; this began to decrease after its initial increase for something over a month, and finally it got to a state when there was no fluid at all secreted, and I was only dealing with the air in the space. I did not know exactly how I was going to end this case. I did not know whether I could permit this opening to close as Dr. Brunn had done, or maintain it as an opening so as to continue the negative pressure. The opening closed, however, itself, and it closed because I changed the apparatus which I was using. I abandoned the portion of the valve stem which passes through the chest wall, and used only that portion on the outside. I made my application of the rubber dam against the skin. I made an opening corresponding with the opening in the chest wall, put one of the valve stems against this opening so that its flare corresponded with the opening, and then fastened that down with a second piece of the rubber dam, and as the opening had become a sinus, it remained open for a sufficient length of time to permit such aspiration as I wished. I afterwards changed the valve stem for a silver apparatus, for the reason that the valve stem stuck out and made a lump under the clothes, which was annoying. Cheesman used the aspiration apparatus which dentists use to get saliva out of the mouth while they are filling teeth, and that required that the patient should be tied to a faucet. I used an old aspirating apparatus, pump and bottle, and as soon as I had exhausted all I wished, I clamped and took off the tube as Dr. Brunn would do. The patient was turned on her side so that the opening was lowermost. Then aspiration was made, and as much fluid as was in the chest was drawn into the bottle, and after that as much air as the patient could permit. When she had gotten to a certain tension inside of the thorax she would indicate that fact, and the aspiration would be stopped, the clamp closed, the apparatus detached and the patient could move about freely.

Dr. Brunn did not believe that aspiration would expand the lung unless the lung was capable of expansion even without aspiration. I may be in error in quoting Dr. Brunn. We found at the first that this patient said she was breathing in parts of her lung where she had not breathed before. She felt stretchings and the giving way of adhesions as if her lung was being expanded almost against its will. Moreover her heart, which had been towards the left axillary line, came back to its normal place, so that the apex beat was where it should be. This was another thing which showed the effect of negative pressure in drawing things back.

Recognizing that we were dealing with a tuberculous infection, and that we ought to use all of the means used for the treatment of pulmonary tuberculosis, we transferred the patient to a tent as soon as possible, and kept her out of doors night and day, forced feeding as much as we could, and maintained negative pressure until the question of the final treatment of the wound was answered for us by the wound healing. She gained the first week about 2½ pounds, the second week she gained 3 pounds, third week 4 pounds, and to-day I heard from Dr. McChesney that in the last week she has gained another 2½ pounds. That this is a proper way to treat even a tuberculous empyema may not be indicated from the result in this one case, but if this one case can be followed by others, which may be equally satisfactory, the arrangement would have a positive value.

There are certain points occurring to me of which I would like to speak. The reason why we cannot aspirate these empyema cases is because the material is too thick to come through the needle or trocar. I do not see why we could not put in a needle in one place and a trocar in another, and inject sterile salt solution by the needle at the time of aspiration through the trocar, so that the salt solution might dilute and wash out the thick contents of the empyema. I do not believe there is more danger of infecting such a cavity by a proper solution than by opening and washing out with salt solution as we do usually. If that could be done it would be possible to change the contents of this cavity from sterile, or so-called sterile, tuberculous pus to salt solution, and then that salt solution could be gradually aspirated, establishing negative pressure in the thorax without the intervention of any air whatever. Whether this is practicable or not, I cannot say, but I will try it at the first opportunity. A gradual aspiration of an empyema I saw practiced 25 years ago by Tuttle in New York at the New York Hospital. He had put into a case of tuberculous empyema a tracheotomy tube, and attached to that a rubber tube, and he was taking out from that chest every two or three days a certain amount of pus, creating there a negative pressure, which accomplished in that case the same result Dr. Brunn and I have been trying to accomplish in this other case.

I do not like the plan of suturing the pleura to the integument. It is suturing one tissue, the pleura, which has one infection, to another tissue, the integument, which may have any quantity of infections. It is not a plan which approves itself to me at all. Another thing is regarding the breathing exercises in empyema. In ordinary early empyema, we make the patient blow into a rubber bag, and he creates a certain amount of plus pressure in his sound lung, and endeavors to extend his collapsed lung. I am quite certain that can be done, that the air can be forced out of the pleural cavity, and it may be the dressing, acting as a sort of ball valve, prevents some air from returning, so that by that means a negative pressure may be created. We have all seen beneficial results from it. It certainly does distend the col-

lapsed lung. You can create just as much pressure in the collapsed lung as the patient can produce in the rubber bag which he is trying to distend.

Dr. Barbat—I did not see to catch the way in which these lungs are distended. I have watched these cases very carefully. I have found that the thing which prevents the lung from expansion is the diseased pleura. Take a nice, clean, pink pleura and give it half a chance and it gets well. We have all seen, in making a hole through the chest, how the pus shoots up. There is an inspiration and the air will enter the chest cavity. Then take a piece of rubber dam about one foot square and put it over the opening in the chest cavity, leaving one edge free, the edge which is going to be downward. That gives all the valve you want. When the patient inspires the air and pus will run out through the opening, and when there is an expiration the air will try to rush into the cavity, and the rubber dam closes up and the air does not get in. In the last case I had I removed a portion of one rib and left drainage in for five or six days. The next time I shall follow Dr. Brunn, and leave out the drainage tube. With regard to the closure of Dr. Brunn's case, there is no doubt that the oxygen and nitrogen will absorb quite rapidly. The oxygen is absorbed very rapidly in the chest cavity, and the nitrogen very much more slowly. If you keep the lung expanded for a while the adhesions will form gradually and slowly and close up, at the same time drawing the lung down and eventually close up the cavity.

Dr. Stapler—I would like to say that I have devised an instrument for just such cases—a simple metal tube which at its lower end sticks into a larger one, and a small rubber plate. The whole tube is introduced into the opening of the chest. We are not able to cure every case of empyema. The cure does not depend upon the instrument, it depends upon the nature of the infection. Some can be cured by a simple incision.

Dr. Terry—I think Dr. Brunn deserves a great deal of credit for this work. I do not agree with him on all points. There is one very important point to be taken into consideration, and that is the anesthetic. Some of these patients are almost moribund, and a general anesthetic is exceedingly dangerous; in such cases I have resorted to local anesthetic with success. Another important point is the question of drainage at the lowest point. The text-books will tell you to resect the sixth, seventh or eighth rib, but they are not low enough. The lowest part of the pleural cavity is what you want, and you should take the ninth or tenth rib, and you will get healing earlier.

Dr. Ebright—The subject of sudden death is important. We often get these patients, and before considering send them to the surgeon. If the patient is moribund, the interference with respirations is great, and the voluntary muscles are called into play; if we paralyze these muscles with an anesthetic, we can only expect immediate death. If we remove a rib, we remove a large amount of fluid in the cavity which has been exercising pressure upon the surrounding membranes. This produces motor paralysis. After the operation the patient is not allowed the fluid he has ordinarily been drinking, and we get a condition analogous to severe hemorrhage. One of the causes of death after operation is vasomotor paralysis from interference with the pressure upon the vessels. To overcome this we have been in the habit of aspirating patients suffering from dyspnea.

Dr. Powers—I have seen collapse in two cases, one case very close to death. A large number of these cases come with extreme compression of the lung, and even after very long periods of time have recovered with expansion of the lung. With regard to breathing exercises, it is to be remembered that in many cases the trouble is circumscribed. It is not the whole cavity. The adhesions form early in the production of pus. You do not actually run the risk which Dr. Brunn seemed to expect in opening the pleural cavity. I would refer to the statement of the way in which the organisms disappear. I have seen just the reverse of that. I had a case in which aspiration showed primary infection of streptococcus with pneumococcus. Before the case had finished the pneumococcus had disappeared and the streptococcus was left.

Dr. Brunn—With regard to what I said about aspiration of air in expanding the lung, I mean to infer that after you had a vacuum in the chest wall, as in the normal individual, that would be enough. You would not have to go on, to continue aspiration. I do not think that the suturing of the pleura to the skin would be a dangerous procedure. With regard to the dressings, I argued in my paper that the dressings will produce the negative pressure, and will act in that way on a very early case. Where you have the lung bound down by adhesions you are working under a disadvantage with a simple rubber dam. On inspiration the air is not forced out, but on expiration the air is forced out. I said in my paper that there were two distinct sides or questions, one the infection and the other the mechanical side. I went more into the mechanical side. With regard to the question of death after pleural adhesions with the withdrawal of fluid with the aspirator, I left that out of my paper, because it did not seem to come in in this case. Drawing out two or three quarts puts the chest under tremendous negative pressure, and you have pressure acting upon the blood vessels. In these cases it is always wiser to draw out a small amount at a time and let the patient recuperate.

Unfinished business. The executive and library committees reported regarding the rooms offered by Mrs. Emerson for a library, that after looking over these rooms they had concluded that it would be inadvisable to change our present quarters.

Dr. Powers' motion that the society remain in their present rooms was carried.

New business. Communication read from the Marin County Medical Society in regard to contract practice. Moved and seconded that this be endorsed and placed on file, and the secretary be instructed to advise the Marin County Medical Society of our action. Motion carried unanimously.

In reference to the resignation of Dr. Laidlaw, read at the last meeting, Dr. Barbat stated that he had since died, and that the society should take cognizance of his death. A motion that a committee be appointed to draft resolutions was carried.

Dr. Ellinwood called the attention of the society to the Lane lectures, and invited all to attend.

Dr. Somers made an appeal to the society that some influence be exerted with regard to the change of site of the City and County Hospital, and read the following resolutions:

Resolved, That the San Francisco County Medical Society protests strongly against the proposed removal of the City and County Hospital from its present site to the Almshouse tract, for the following reasons:

(1) No good and sufficient reason has been offered for such removal.

(2) The present site is in every way suitable for the purposes of a public hospital, inasmuch as it is ample in size, warm, sheltered and convenient both to the acutely sick and to the attending physicians.

(3) The Almshouse tract is altogether unsuitable, because inaccessible, remote and located where the climatic conditions are most unfavorable; be it further

Resolved, That these resolutions be spread upon the minutes of the society, and that copies be sent to the Board of Supervisors and the Board of Public Works.

Dr. Jones moved the adoption of the resolutions. Seconded. Carried.

Meeting adjourned at 11 p. m.

H. E. ALDERSON, Secretary.

PUBLICATIONS.

Chemical and Microscopical Diagnosis.—By Francis Carter Wood, M. D., Adjunct Professor of Clinical Pathology, College of Physicians and Surgeons, Columbia University, N. Y.; Pathologist to St. Luke's Hospital, N. Y. D. Appleton & Co., New York and London, 1905. Cloth, $5.00.

It is unnecessary to emphasize, in the present state of medical knowledge, the importance of microscopical and chemical examinations of the blood, and the secretions and excretions of the body, in the diagnosis of disease. Indeed, this has been so universally appreciated within recent years, that a distinct and increasing demand has been created for works of reference on these and allied subjects. Several such books already occupy honored positions in this literature, and Dr. Wood's book, the subject of this review, is the latest addition to the library of clinical pathology.

This large volume of 745 pages is an excellent testimonial to the industry of the author. Whilst it cannot lay any claims to originality, the systematic arrangement and intelligent treatment of the various subjects is so good that it is certain to appeal both to the specialist and general practitioner. The subject of the blood is very elaborately discussed in some 257 pages. For the most part, the matter at hand has been treated along the accepted traditional lines; nevertheless the author has been careful to present his subject from the most recent points of view. We are, however, very much surprised that he should still retain the antiquated term "polynuclear leukocyte," which is both inaccurate and misleading. No work of a similar character has fallen into our hands which treats with equal fullness the various methods of blood examinations; and those portions devoted to cryoscopy, precipitin reactions, malaria, and the serum-reactions are to be specially commended.

Part II is devoted to the methods used in the examination of gastric contents. Special attention is given to the significance and limitations of findings obtained under different normal and diseased conditions. The succeeding 4 chapters are devoted respectively to the examination of feces, parasites, oral and nasal secretions, and sputum. The chapter on urine is a very complete consideration of the subject. Particular attention has been given to the description of the technical methods involved in the different chemical examinations; and the section devoted to the consideration of drug reactions is a very useful addition. We are still more favorably impressed with the excellent although brief discussion of the different methods utilized in the study of the functional efficiency of the kidneys. The 2 concluding chapters are devoted to study of transudates, exudates, and milk examinations. The last chapter, on milk, is rather disappointing, for the author shows himself a theoretical student rather than a practical worker in the chemistry of milk.

Dr. Wood's book is undoubtedly the most complete book of its kind that has appeared in the English language. Unfortunately, however, many will find the work too highly specialized in some directions for ordinary practical work; but as a work of reference for student and practitioner, it will undoubtedly meet with great favor. A. J. L.

Studies in General Physiology.—By Jacques Loeb. 2 Vol. The Decennial Publications of the University of Chicago. Second Series. Volume XV. The University of Chicago Press, 1905.

These volumes will be most welcome to those who desire a collection of Prof. Loeb's brilliant researches in the domain of general physiology. All of his papers on these subjects have been collected and translated into English. At first sight, the material seems rather heterogenous; yet a central idea runs throughout the work, viz., the attempt to control life phenomena and to reduce these to terms of physics and chemistry.

The studies on the movements of animals well illustrate the general point of view taken. Instead of referring these movements to instinct or will, the author has attempted to reduce them to terms of reaction to various stimuli. Among these stimuli are light, gravity, chemical and solid bodies; and the reactions to these are termed, respectively, heliotropism, geotropism, chemotropism and stereotropism—positive when the movement is in the direction of the stimulus, negative when the movement is in the opposite direction. The susceptibility of animals to these various stimuli differs not only among different species, but in the same animal at different stages of its life and under different conditions of nutrition, etc. Prof. Loeb has shown that many movements, believed to be due to will or instinct, are in reality merely blind reactions to external stimuli. Under certain experimental conditions these movements may be of absolutely no value to the animal.

The chapters on artificial parthenogenesis are, perhaps, the most interesting in the collection. The central idea of these experiments is to produce a development of unfertilized eggs by chemical, mechanical or physical agents. The success attending these experiments is well known, the most striking results being obtained by placing the eggs of marine animals in media of high osmotic pressure for a definite period of time.

The books are extremely interesting to all who are dealing with life phenomena, and especially to those who are working in the domain of general physiology. To the physician, however, the problems treated seem rather remote from those that interest him, and the fact that the experiments have been made upon the lower forms of animal life renders the application of the results to the physiology of higher animals rather difficult. Nevertheless the fundamental character of the work will appeal to all who interest themselves in life phenomena. A. W. H.

Modern Clinical Medicine.—Infectious Diseases.—Translated from "Die Deutsche Klinik" by Dr. Julius L. Salinger, and edited by Dr. J. C. Wilson. D. Appleton & Co., New York. Price, cloth bound, $6.00.

This is a very interesting and instructive treatise. Some of the subjects are dealt with in a most comprehensive way by their authors, many of whom are eminent as teachers of internal medicine. But it can hardly be considered as a complete work on the subject, as certain phases are dealt with rather briefly. For instance, the important results obtained by the United States Government Yellow Fever Commission in Cuba are barely mentioned; hardly enough detail of the manner in which the results were obtained being given.

Perforation in enteric fever is mentioned as being an indication for calling in the surgeon.

Practically nothing else is said about it. Thus one of the most important complications of typhoid, upon the early recognition of which by the physician the success of surgical interference will depend, is passed over without consideration of a symptom or a sign.

In the article on cholera the use of antitoxin is mentioned as having been introduced in 1893, but nothing is said of the enormous amount of work done in this field since then by Hoffkine and others.

Much that has been done in recent years in the field of etiology of dysentery and the various strains of the Thiga bacillus is omitted.

Some of the chapters give one the impression that they might have been concluded some years ago.

However, the book is most interestingly written, and contains much that is of value. H. G.

Hall's Physiology.—A Text-Book of Physiology, Normal and Pathological. For students and practitioners of medicine. By Winfield S. Hall, Ph. D., M. D. (Leipzig), Professor of Physiology, Northwestern University Medical School, Chicago; Member of the American Physiological Society; Member of American Association for the

Advancement of Science, etc. New (2d) edition, revised and enlarged. In one octavo volume of 795 pages, with 339 engravings and three full-page colored plates. Cloth, $4.00, net. Lea Brothers & Co., publishers, Philadelphia and New York, 1905.

The most notable addition to this second edition is the chapters dealing with Pathological Physiology. At the ends of the chapters on Circulation and Blood, Respiration, Digestion, Metabolism and Excretion follow concise sub-chapters on their pathologic physiology, while within the body of the chapters on Special Senses and Nervous System their pathology is discussed. This addition is admirable, especially for medical students. The relationship and importance of normal physiology to pathologic changes in the different systems is one which has been too much neglected in the past. The chapters on Digestion, Absorption and Metabolism contain the latest knowledge in these ever-changing subjects. It is a comprehensive but a concise text-book, and one which can be recommended to students and practitioners.

H. P. H.

The Pharmacopeia of the United States of America, Eighth Decennial Revision.—Official from September 1, 1905. Philadelphia, P. Blakiston's Son & Co. San Francisco sub-agency, Payot, Upham & Co., 100 Battery street. Price, cloth bound, $2.50.

Elsewhere in this number of the JOURNAL will be found matter relating to the Pharmacopeia, and the Publication Committee has decided to publish articles from month to month on subjects pertinent thereto. The enormous value which the Pharmacopeia should have to every practicing physician is too little appreciated. No conscientious physician should be without a copy, or should fail to read it carefully and to study it constantly. Get a copy of Bulletin No. 23, U. S. P. H. and M. H. Service, and a copy of the Pharmacopeia, and see how you have been lied to and victimized by the irresponsible agents of various "manufacturing" houses.

Concepts of the Electrical Phenomena of Planetary Systems. A monograph Applying a Fundamental Hypothesis to Astronomical Facts.—By GEORGE ADAM. The San Francisco News Company, 1905. Price, 75 cents.

Publishing Medical Journals for Private Profit or for the Profession.

There is a splendid, and perhaps unexpected result of the plan of the American Medical Association as to non-secrecy in the drugs used or advertised to the profession. It has forced into the open, or will inevitably do so, the concealed journalistic supporters of the nostrum traffic. By doing this, it will as certainly expose the so-called medical journals which do not care a fig for the medical profession they have so long deceived and exploited, and which have been published solely for the financial benefit of the owners and their compliant editors. One can never cease hammering that in the professional use and control, indeed in the professional ownership of its medical literature, lies a vast deal of the progress of medical ethics, art and science. The action of the American Medical Association cuts sharp and clear with these pseudos, and says: "On this side the sheep, upon that the goats." One of our contemporaries has come out frankly and says: "We are heart and soul with the goats, and for profits in the advertising business." Another gibes at the attempts of the "reformers," "the cackle of some young and eager reformers," criticises, charges with many innuendos that some of the American Medical Association council members are in the pay of manufacturing companies, and otherwise shows plainly its sympathies, "letting 'I dare not' wait upon 'I would.'" Come, now, gentlemen—journalists, editors, publishers, subscribers and contributors—no befogging will avail. Choose your party! Physicians must know where you stand, and writers of medical articles must know where to send them for publication.—*American Medicine.*

Sanitary Sweeping

While lecturing recently, a Chicago physician—and member of the School Board—declared the prevailing method of dry sweeping a prolific source of disease, due to the spreading of germ-laden dust. Dust, dirt and germs are best removed from floors by first sweeping with a cloth-covered broom, moistened with water containing just a little Platt's Chlorides.

Platt's Chlorides,

The Odorless Disinfectant

A colorless liquid, sold in quart bottles only. Manufactured by Henry B. Platt, N. Y.

FORMULA—A combination of the saturated solutions of Chloride Salts, proportioned as follows: Zn 40 per cent., Pb 20 per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent., K 5 per cent.

California State Journal of Medicine.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. III OCTOBER, 1905. No. 10

Every practicing physician should have a copy of the United States Pharmacopeia, 8th Decennial Revision.

EDITORIAL NOTES.

THEORY AND PRACTICE.

The following words are not intended as a criticism of a particular medical journal, but rather as a direct object lesson of the general inconsistency of even those medical publications which are the property of medical men. The *St. Paul Medical Journal* is "Edited and published by the Ramsy County Medical Society." At page 694 of its issue for September will be found a "Notice to advertisers. Only ethical advertisements received." At page 695 is a very good editorial on the subject of "Proprietary remedies and prescription writing," in which the lack of training in materia medica and prescription writing in our medical schools is deplored, and is evidently considered, and justly, as one cause of the increasing use of nostrums with fanciful names, by physicians. Now consider the students "who cannot write prescriptions at all," to use the words of the editorial in question, and who settle in St. Paul, join the Ramsy County Medical Society, receive the *St. Paul Medical Journal* and read this or some similar and equally excellent editorial. On one page is the statement, "only ethical advertisements received"; on the other is an editorial which speaks for the best in medical ethics, highly commends the Council on Pharmacy and Chemistry of the A. M. A., and stamps the high character of the editorial control of the journal in question. Considering these facts, suppose the aforesaid students look through the advertising pages of this journal in order to learn which "proprietaries" are ethical. They will find commended to their attention and recommended by the statement on page 694 that only ethical advertisements are received, *Gray's tonic; antiphlogistine; transodine; "the family laxative, fig syrup"; Kutnow's powder; peptomangan; passiflora; phenol-sodique; bovinine; sal hepatica*; and, last delicious morsel, *uriseptin*. To the best of our knowledge there is not one of these things that conforms to the rules of the Council on Pharmacy and Chemistry.

McCORMACK ON ORGANIZATION.

During the present month of October, Dr. J. N. McCormack, of Bowling Green, Kentucky, is to visit California and address the physicians of our state on the subject of organization and what it means to the community and to the physician. During the latter part of September and the early weeks of October he will devote his energies to organization work in Washington and Oregon, reaching Sacramento, where the first meeting is to be held, on the 16th. On the 17th a meeting will be held in San Francisco and on the 18th he will talk to the physicians of Oakland and the Councilor District of which it is the center. Meetings will also be held at San Jose, Monterey, San Luis Obispo, Los Angeles, Pasadena and San Diego. No man ever spoke more entirely from the heart on any subject whatever than does Dr. McCormack when he talks on the subject of the welfare of the medical profession, its relations to the citizens in its charge, and the great value to physician and layman resulting from harmony and active organization in the medical profession. Physicians who are squabbling amongst themselves and airing their personal fights for the benefit of the community are far from being a credit to the profession to which they belong. Nor can a community harboring such doctors be at all well served, medically, or have much respect for the profession to which these fighting representatives belong. Fortunately for us, there are very few such communities in our state, and as the months go by the harmony in the ranks of our profession becomes more and more marked. We have taken the first step—we have a fairly good organization throughout the state. Now it remains for us to take the next step—to perfect that organization and to make it more and more useful, not alone to the profession itself, but to the laymen whom we serve. It is largely to help us take this step that Dr. McCormack is coming to visit us. Every physician, and especially every member of every component society, should make it his particular business to attend one or more of the meetings which Dr. McCormack will address, even if at some personal inconvenience. There is no man living in this country who so fully understands what our profession may do, if it will, or how it may better itself and the public generally, than does Dr. McCormack. Under no circumstances fail to hear him and do

everything you can to bring to these meetings physicians who are not now members of our organization.

DIRECTLY INSULTING.

We all know that the American Medical Association is a body truly representative of the very best in the medical profession of the United States and that its efforts are and have been directed toward improving and helping American physicians. A recent undertaking of the Association was the organization of a Council on Pharmacy and Chemistry with the object of protecting the physician and the patient from some of the all too many frauds foisted upon us by lieing and utterly unscrupulous "manufacturers." The committee on chemistry of this council recently reported on certain so-called remedies and this report we had the pleasure of reprinting in the July JOURNAL at page 223. Among other things, "phenalgine," which the "manufacturers" claim to be a definite chemical substance, was shown by analysis to be merely a mixture of acetanilid, sodium bicarbonate and ammonium carbonate. The five gentlemen whose signatures are attached to this report are all of them chemists of national, if not indeed of international, reputation, and one of them is the chemist in charge of the Bureau of Chemistry of the Department of Agriculture of the United States, Dr. H. W. Wiley. The Association is possessed of sufficient of this world's goods to satisfy a judgment and we would expect, if any concern had been injured by the Association's Council, to see such "manufacturer" promptly file a damage suit. But a damage suit brings to light *facts*—and this is sometimes dangerous—so the "manufacturers" of "phenalgine," this acetanilid mixture, have not brought a suit. They have bought two pages of the *Medical Record*, a journal which has, heretofore, been supposed to be published in the interests of the medical profession, and in these two pages they print what is nothing more nor less than a direct and unqualified insult to every reputable physician and especially to every member of the American Medical Association. It is almost inconceivable that the *Medical Record* could or would permit itself to allow such a gross insult as it issued to the world in its number of September 2d. Are reputable medical men going to permit this sort of thing? Are they going to continue to support a journal which permits "manufacturers" of this class to use its pages for the perpetration of insults directed at the medical profession and its representative body, the A. M. A.? Are we so grovelingly tolerant that we will continue to contribute our good money—in the shape of subscriptions—to the support of a publisher that will permit his advertisers to so outrageously insult us? Think this over carefully and then, if you are a subscriber to the *Medical Record*, consider whether you desire to aid that journal in allowing advertisers to insult you, by continuing your subscription.

NEW ORLEANS DEATH RATE.

The *New Orleans Medical and Surgical Journal* for September presents some very interesting figures on the relative number of cases and deaths from yellow fever during the present and previous epidemics. From these it appears quite clear that the present epidemic is somewhat under control and the prospect of bettering the season's record before the advent of cold weather appears to be good. The same journal regularly publishes a mortuary report for the city of New Orleans, and that for the current month contains matter of interest. The whole country has been profoundly roused by the yellow fever epidemic and hundreds of thousands of dollars have been spent in quarantine and preventive measures. The mortuary report for July shows that 42 whites had died during the month from the prevailing epidemic; but it also shows that 84 persons died from tuberculosis, 53 from diarrhea, dysentery and enteritis, and 46 from heart disease, during the same period. In other words, tuberculosis, claiming more than twice as many victims during the month of July as did yellow fever, excites no comment. Of course this was only the very beginning of the epidemic, and the month of August will show a very much larger number of deaths from yellow fever, yet the figures in the table are striking. Doubtless one would be quite safe in assuming that a much larger number of persons have died, in the city of New Orleans, during the past 50 years, from tuberculosis than from this terrifying epidemic. Tuberculosis is always with us and its fatal results are achieved insidiously; yellow fever is only an occasional visitor and brings death suddenly and, to a degree, mysteriously. Does it not seem time for each commonwealth to wake up and do a little more fighting against tuberculosis?

TELEPHONE SERVICE.

It is difficult to conceive of a more inconvenient modern "convenience" than the telephone, as the service is at present administered in San Francisco and some other parts of the state. The old and monopolistic company seems to have engaged the services of some mentally astigmatic genius for the purpose of devising means and methods for the aggravation of the telephone subscriber; and of all men, probably the physician suffers most from this cause. Oftentimes not only his own practice and his own business interests suffer, but his patients are put to much annoyance and not a little danger by the carelessness of the telephone operators. Nearly every man who comes to the office of the Society "kicks" about the telephone service. It does not do any particular good to "kick" to the secretary, for he has the same cross to bear. But why not try a sort of joint and combined "kick?" Agree upon a time and then all file complaints with the company; perhaps that would do some good. What do you think of the idea?

WHAT'S IN A NAME?

Last month the JOURNAL referred to the pamphlet issued by the Marine Hospital Service on the subject of the new Pharmacopeia. We wish again to refer to the same document, and call attention to another group of remedies about which there seems to be a considerable amount of confusion in the physician's mind. At page 40 of this official document we find "Hexamethylenamina," the new Pharmacopeial name for hexamethylene-tetramine, and we read that it is "also known as *aminoform, ammonio-formaldehyde, cystamine, cystogen, formin, uritone* and *urotropin*"; at least two more may be added—*hexa-cystine* and *formamine*. In other words, we are informed by this official document, that all of these fancifully named remedies are one and the same chemical—hexamethylene-tetramine — and that whether you write for urotropin, formin, cystogen or any other of these names is immaterial; your patient will take the chemical, hexamethylene-tetramine. A serious objection has been urged to the new Pharmacopeial name given to this chemical; it is too long to be remembered, and cannot well be abbreviated without danger of confusion. The objections are reasonably good, but they do not apply to a simple abbreviation of the chemical name—*hexam.-tet.* The chemical name so abbreviated is easy to remember, is definitely descriptive, is not at all liable to be confused with any other abbreviation, and should be generally used. Just so long as physicians will continue to prescribe this chemical under its various fanciful names, just so long will they continue to indicate their own ignorance of their materia medica and their superlative faith in the prejudiced statements of the various detail men. And moreover, just so long will they continue to make the pharmacist pay a high price for medical ignorance, for they will continue to compel him to carry in stock a number of trade-brands of the same identical chemical. Is that right? It has been urged that the trade name given to a remedy of this sort by the manufacturer first introducing it should be used exclusively, so that he might get the benefit of his outlay in time and money in perfecting the discovery. There is certainly some justice in this claim, and it could be conceded were it not for the practices of manufacturers themselves. One of them will discover and introduce a chemical of this sort, and it will soon be found to have certain valuable medicinal properties. Immediately a number of other manufacturers will make the same thing, and market it each under a different and also fanciful name, and each claim that his preparation has distinct and unique qualities not possessed by any other substance under heaven. If they were content to market their products under definite and recognized names—either chemical or arbitrary names—and to depend for sales upon the quality of the goods, reputation of the manufacturer, price of the product, etc., all would be well. But this they do not do, and consequently there seems to be no honorable course open to the conscientious physician save to disregard them all and prescribe the remedy under its pharmacopeial or chemical name; in this particular instance *hexam.-tet.* would seen to be the easiest, and it certainly is as short and as easily remembered as any of the trade names under which the chemical is marketed. Why not follow the Pharmacopeia for a while and see how it works?

OFFICIAL REGISTER.

From present indications the 17th edition of the Official Register and Directory of Physicians will be distributed during this month of October. During the past year every effort has been made to correct the data contained in the book and to bring the addresses up to date, yet there are still a considerable number of names in the "address unknown" list. Once more we earnestly call upon each and every member of the Society to aid us in this work and to keep us posted as to the movements of physicians. If a doctor moves into your vicinity, let us know about it; it will take only a few seconds of your time, and it will make the Register just so much more useful and valuable. Please look through the "address unknown" list and advise us at once if you know the present correct address of any physicians in that list. Remember that this Register, like the JOURNAL, is your own property, and that as such you should take an interest in it and endeavor to aid us in making it accurate. Criticisms and suggestions are more than welcome—they are desired. The general scheme of last year has been followed in the present volume, and seems to satisfy all practical demands. If you do not receive your Register by the early part of November, let us know.

A LAST WORD ON ACCURACY.

There is an exactness of diction and an accuracy in the observance of all superficial things in life which to some people is all important. Thus we see our amiable friend Mr. Rockefeller observe with a marvelous degree of exactness all the outward and visible ordinances of the religion which he professes, while at the same time he is reported to regard it as a crime to himself if he allows the victim of a business deal to escape with a single dollar that might have been extracted. One may also read learned and scholarly editorials in some medical journals, defining exactly the meaning of a Greek root, or setting forth with commendable accuracy those things which fall within "commercialism" and those characteristics of pure "professionalism"—and in the same journal discover that "professionalism" has been seduced by "commercialism," and that its advertising pages help to promote the use of such things as chionia; ergoapiol; antikamnia, etc. But this exact adherence to the letter and absolute disregard of the spirit of the law, does not appeal to us. Your JOURNAL, under the guidance of your Publication Committee, began an active war against certain well-defined abuses

which have crept into the medical profession, and so far as we are aware, the principle actuating us has been conscientiously lived up to. The verbiage of one or two of our criticisms has been questioned, and the cry of "inaccuracy" raised, much to the delight of some of the smaller journals, probably "published for profit and not for the profession." If there has been any error in the principle, we have thus far failed to have it called to our attention. Abusive adjectives are not arguments, and there is too much real work to do to pay any particular attention either to them or to thinly veiled insinuations of improper motives. Time will settle many questions, and we are quite willing to let the problem of motives await its solution in due course; some people are so constructed that they cannot believe the truth.

SOME GOOD SUGGESTIONS.

Elsewhere in this number of the JOURNAL will be found the address of Dr. Morrison, read before the meeting of the Railway Surgeons' Association. It is to be commended for its excellent suggestions, particularly in the matter of frequent examination of water supply and conservatism in emergency surgery. It is certainly cheaper and easier to head off an epidemic than to subsequently discover its cause and stamp it out. The railway surgeon must often face conditions that are very perplexing and that tax his judgment to the extreme, and in just these conditions will the suggestion of conservatism offered by Dr. Morrison be of very great value. Not infrequently more strength is required to leave an injury alone than to operate immediately; but the final result may not be so satisfactory, so far as the wage-earning individual is concerned.

KEEP AT IT.

The investigations now under way in New York are very decidedly illuminating the inside manipulations of the big insurance companies. It is particularly interesting to note that no word of possible criticism attaches to the name of any medical director or employee. Indeed, quite the contrary, for it becomes more and more evident that these companies are well able to pay a decent fee for examinations, and this fact seems to be dawning upon the editorial intelligence of a number of medical journals about the country. It is a rank injustice that physicians should be paid less than $5.00 for any examination, only that the few dollars thus saved may be added to the enormous sums of hoarded wealth which are kept on hand in New York for the purpose of manipulating Wall street and floating "undigested" securities. Keep pegging away at this question of cheap fees and eventually we shall see the time when the minimum fee will be $5.00—as it should. Talk to your friends—against these cheap-fee companies; when possible, persuade them to take out their insurance in some one of the numerous good and sound companies that pay decent fees for careful work. Let them know that a company paying for a cheap examination is going to get cheap, and to that extent unreliable, work, and that such work is a danger to the company, in the long run. If possible, refuse to make any examination for less than $5.00, even if the agent does get mad and swear a little because he may have to pay the extra $2.00 himself; it won't hurt him and the time required to make a thorough examination is worth $5.00, or it is worth nothing. We can do a lot toward bringing about this reform if we will but keep at it; keep talking; keep refusing to make cheap examinations; keep explaining to prospective insurers what it means and how the big ones are gathering enormous cash reserves—partly at your expense. They can afford to pay $80,000.00 salaries, but cannot afford to pay $5.00 examinations.

USE THE OFFICE.

The secretary desires to call the attention of members to the fact that the office of the Society, in the Y. M. C. A. Building, San Francisco, could possibly be of service more often than it is, if they would but use it as a sort of "clearing house." For instance, it very frequently happens that nurses desiring hospital appointments, or general work, apply to the secretary; we also have noted two or three stenographers who are perfectly competent to take medical dictation. Physicians desiring to go away for a time and who have no one at hand to take care of their work, could often be placed in communication with men who would be glad of the change and who would like the opportunity of thus substituting for the absentee. Furthermore, a number of the hospitals in San Francisco are now regularly notifying the office of the time of operations to be performed, and all visiting physicians are cordially welcome to attend such operations. A little coöperation, a little more effort to center these various lines of interest in the office of the Society, will very soon be found to largely effect the convenience of all.

LOCATIONS FOR SALE.

Not a month and scarcely a week goes by that does not see some member of the Society come to the office and ask about a suitable location, or inquire whether we know of any one who wants to buy a practice or secure a location. Very frequently we are asked about office rooms and just at the present time we have on file a memorandum relating to some offices in San Francisco that could be obtained by an oculist and aurist to very good advantage. We also know of several locations which are for sale. It is no trouble to attend to these things, though doubtless some members are restrained from applying to the office for information under the mistaken belief that it is a bother to the secretary. The office of the Society should be a sort of central exchange for just such things and the secretary trusts that the members will so regard it and will not hesitate to apply for information from time to time.

"MURDERED BY ADVERTISEMENT."

Patent-medicine horrors never reached a point of deeper degradation than in the yellow fever troubles of the south. Mr. Samuel H. Adams, whose series of articles will begin probably in five or six weeks, will hardly have anything more startling to narrate than the incredible performance of "Peruna" in alliance with the New Orleans *Times-Democrat*. This sheet has accomplished a feat of prostitution which, considering its pretense to respectability, probably sets the record. While the south is struggling to check a peril of the direst magnitude, this newspaper publishes an interview with "Dr. Hartman," with the familiar allegation that he "said in part," and all other devices to make it look like an important piece of news. Its headlines are: "How to Avoid Yellow Peril. An Interview With Dr. Hartman Concerning the Yellow Plague." To the reader this is the genuine opinion of a physician. He cannot know that Dr. Hartman is the head of the Peruna Company, and that the *Times-Democrat*, in whom the reader presumably has some trust, is selling itself and the safety of its constituents for a bag of gold. "A summary of this interview," the *Times-Democrat* informs us, "is being spread broadcast over the United States *for the benefit of yellow fever sufferers*." The gist of it is that, while screens and other precautions are advisable, Peruna should be taken at once and continued during the whole course of the epidemic. "'I feel sure,' the doctor went on to say (!), 'that any person following this advice is in no danger of taking yellow fever.'" For anybody who believes we have taken too seriously the patent-medicine evil and newspaper complicity therein, this unspeakable outrage should be a lesson. Is there anything to which men cannot be led by money? To own a newspaper and hire it out to perilous fraud in an emergency like the yellow fever danger almost surpasses one's belief in human greed. No more disheartening proof of the need of the crusade which we have begun could possibly have been offered.—*Collier's*.

[*Collier's*, in the editorial here reprinted, uses the term "patent medicine" in the sense in which the public generally uses it. We beg to call attention, once more, to the fact that these preparations of the "Peruna" class are *not patented medicines:* they are simply nostrums advertised directly to the public. In this connection it is interesting to note that, according to some pharmacists in San Francisco, the sale of these so-called "patents"—really nostrums—has fallen off fully 50% in the last year or so. That is certainly encouraging.—Ed.]

Collier's has very justly and moderately scored the newspapers for this sort of murderous "write-up," and a number of medical journals have expressed their pleasure and their gratitude for the outspoken attack by *Collier's Weekly*. The same sort of thing is going on right along in many so-called medical journals, principally of the smaller class, and we sit supinely and utter never a word. Is there any material difference, so far as rankness is concerned, between the write-up of "Peruna" referred to by *Collier's* and the following write-up of "Tongaline" which appeared in the August issue of the *Mobile Medical and Surgical Journal?* If there is any such difference we should be delighted to have the *Mobile Medical and Surgical Journal* point it out to us:

"Stegomyia fasciata has produced an epidemic of yellow fever in certain sections of Louisiana and adjoining states.

"Stegomyia punctata has inoculated thousands with virulent malarial germs throughout the balance of the Mississippi Valley.

"Tongaline Mellier, in one of its forms as indicated, antagonizes and destroys the effects of these parasites on account of its extraordinary eliminative action on the liver, the bowels, the kidneys and the pores, whereby the poison is promptly and thoroughly expelled."

Do you believe it?

NEXT!

In the August issue of the Journal, referring to the action of the House of Delegates at the Portland meeting, the following statement was published: "The first gun was fired on the afternoon session of Monday, when the Missouri delegation presented resolutions from their State Association calling for betterment in the *Journal's* advertising pages." Criticising this statement, the *St. Louis Medical Review* says:

> In an editorial on the nostrum question, it states that the Missouri delegation presented resolutions at the Portland meeting "calling for betterment in the *Journal's* advertising pages"; meaning thereby the *Journal of the American Medical Association*. Now these resolutions were framed at the annual meeting of the Missouri State Medical Association at Excelsior Springs by a specially appointed committee, consisting of the state delegates, Drs. Jabez N. Jackson, H. R. Keiffer and W. B. Dorsett. They were presented at Portland by Dr. Dorsett, on behalf of the committee, and the terms used consisted of *a recommendation that the advertising of nostrums in the reading columns of medical journals** [plural] should be deprecated and discountenanced. It appears, therefore, that the resolutions tendered by the Missouri committee have been so garbled by the California State Journal of Medicine as to make them appear to support the animus constantly displayed by that organ against the editor of the *Journal of the American Medical Association*. This, again, is not only inaccurate, it is dishonest; and it is keenly and justly resented by those whose actions are thus misrepresented and their convictions outraged.

The resolutions introduced by Dr. Dorsett, delegate from Missouri, are to be found at page 262 of the *Journal A. M. A.* for July 22d, and read as follows:

> Whereas, The majority of so-called proprietary remedies are secret nostrums whose formulæ are unknown to the medical profession; and
>
> Whereas, The use of such remedies stifles investigation of rational therapeutics and lowers the standard of our practice to mere empiricism; and
>
> Whereas, The medical journals, the creatures of our profession, are filled with advertisements of these nostrums enlisting the attention of the unwary practitioner and resulting in enriching the manufacturer and defrauding the unsuspecting patient; therefore be it
>
> Resolved, That it is the sense of this body that the use of these remedies by the members of the American Medical Association is reprehensible, and that these advertisements should not appear in reputable medical journals.

There are the resolutions exactly as published in the official minutes of the A. M. A.; please read them carefully, and they will disclose several interesting things.

First. Can anyone who is conversant with the advertising pages of the *Journal A. M. A.* for the past twenty years or less conscientiously deny that these resolutions called for betterment in its advertising pages?

Second. Can the gentlemen who are reported by the *St. Louis Medical Review* to have drawn up these resolutions deny that they had the *Journal A. M. A.* in mind as one of the journals needing reform?

Third. Can anyone find in these resolutions, as officially published by the Association, "a recommendation that the advertising of nostrums in the reading columns of medical journals should be deprecated and discountenanced"? If not, the phrase as given by the *St. Louis Medical Review* is unquestionably a substitution.

Fourth. Does it appear to any person of ordinary intelligence that the resolutions have been so garbled by us as to appear to support an attack upon the *Editor* of the *Journal A. M. A.?*

Fifth. The statement that this Journal has "constantly displayed an animus against the editor of the *Journal A. M. A.*," is false. This Journal has from the commencement of its criticisms of the *Journal A. M. A.* placed the responsibility where it belongs —with the Trustees; never but once has the editor of that journal been referred to in the pages of our Journal, and on that occasion the statement was specifically made that he was not responsible.

One last word. We have not space in our Journal to waste upon this sort of comment, and consequently there will be no further controversy with the highly imaginative *St. Louis Medical Review*. Your Journal is getting, and is bound to get lots of this sort of criticism; indeed, a number of so-called medical jour-

*Italics ours.

nals have so far forgotten that universally recognized journalistic courtesy which refrains from personalities as to mention and attack the editor of your JOURNAL by name. But that is all right; he can stand it; but please remember, when you see or hear these things, the real reason for this abuse. It is a purely commercial one. For instance, take the very issue of the *St. Louis Medical Review* in question. It carries 13½ pages of advertising, of which probably 12 pages are paid for in cash. If the rules of the Council on Pharmacy and Chemistry were applied to this advertising, at least 4 pages of it would have to go out. There is your explanation. These journals live on the nostrum advertising which they print, and they do not at all like to have this fact pointed out. Hence they abuse your JOURNAL, for the reason that it is so persistently agitating the nostrum evil and what it really means.

"Patent" and Secret Proprietary Medicines.

Some weeks ago we published a letter from Mr. Bok of the *Ladies' Home Journal* in which he appealed to physicians for aid in the fight against patent medicines. Since then some correspondence has passed between Mr. Bok and the editor of *The Journal* (A. M. A.). The last letter received was accompanied with a number of advertisements clipped from medical journals—and we regret to say some were from *The Journal of the American Medical Association*, one of which is still there, and probably will be till the contract expires—with a query, "What is the difference between these and 'patent medicines'?" No reply has been sent, as we were not able to answer. If any of our readers can tell the difference between most of the secret proprietary medicines that are advertised to physicians in medical journals and "patent medicines" that are advertised to the public in newspapers, we hope they will inform us so that we can reply to the editor of the *Ladies' Home Journal*. —*Journal A. M. A.*, September 9, 1905.

[The STATE JOURNAL wishes to congratulate the *Journal A. M. A.* on this frank expression regarding certain undesirable advertisements which appear in its pages; this attitude disarms criticism. It is only to be regretted that such a statement as this was not made a year ago, in which case we would have been spared the necessity of making unpleasantly critical remarks. We are particularly glad to note the public announcement that the objectionable advertisements will be dropped from the *Journal's* pages as the contracts expire, and we may look forward to the *Journal* in 1906 and thereafter taking that position in medical journalism which the Association has taken among American medical men—in the front rank of those who are earnestly striving for the right by example as well as by word.—ED.]

Inefficient Refracting.

There are probably not a half dozen hospitals or ophthalmic clinics in the world outfitted with a trial-frame or set of test lenses that would enable even an expert refractionist to diagnose ametropia with the perfect accuracy which is necessary to cure morbid ocular reflexes. But those set to do refraction work in the public clinics are not expert. They are the students and learners. Hence nine-tenths of the glasses prescribed in these institutions are not correct. Ophthalmic surgery and inflammatory diseases are all that interest, and these would be largely preventable by the refraction that is neglected and misdone.

Even in the institutions for the blind, it has been found that some of the inmates are not blind, and that their remnants of vision may be so vastly improved as to make these dependents self-supporting.—Gould, in *Journal A. M. A.*

San Rafael Cottage Hospital.

Under this name, Drs. Howett, Jones and Wickman, of San Rafael, have incorporated and established a hospital.

PRESIDENT'S ADDRESS AT THE THIRD ANNUAL MEETING OF THE PACIFIC ASSOCIATION OF RAILWAY SURGEONS.

By N. H. MORRISON, M. D., Los Angeles.

I FIND some difficulty in expressing to you the pleasure which I feel in presiding at the deliberations of the association at this time, its third session. While we are still a very young association, we have accomplished much in the brief period of our existence—so much, indeed, that we may look backward with pride and into the future with great confidence. The benefit which follows the gathering together of men whose activities are directed along the same general line is now well recognized, and I believe has been strongly characteristic amongst ourselves. The exchange of ideas during the general discussion of any topic which interests us all, the appreciation of the different view-points of other men, the knowledge of how others solve problems that confront every one of us, are features of our meetings that make for the betterment of all. An equally important result—the rubbing together of the various units which make up collectively the surgical system of the railway service—is not as a rule sufficiently appreciated. It is well for men who work together, or along the same lines, to know each other personally; to take a personal interest in each other's work; to become directly acquainted and to meet together from time to time. The surgeon has his own way of doing work, which is a part and parcel of himself. He prefers to hew his timber with his own broad axe, and he does better work when using his own instruments. The things he likes best he does with more zeal and pride than the things which he dislikes, and consequently he is apt to slight that which is disagreeable for him to do.

There are two or three important points to which I desire to call your attention. One is "Drinking Water." All water at division points, where men are working, should be carefully examined by a bacteriologist, and if found impregnated with germs should be sterilized before using for drinking purposes. This can be done at small expense by having the steam from the stationary engines condensed. We all know how easily water becomes infected with typhoid germs, and before we are aware of the fact an epidemic of typhoid fever breaks out, and we then have an abundance of trouble on our hands, which could easily have been avoided if the water had been examined at sufficiently frequent intervals so that we would know that the men were drinking pure water.

Frequent inspections should be made by the surgeons to see that the sanitary conditions are perfect at all points on the line where there are men working. Toilets and cesspools should be examined to see that the drainage is what it should be. It is more desirable to prevent disease among the men than it is to treat them after they become ill, and much less expensive to the associations, to say nothing of lessened danger to the individuals themselves.

The relation between the railroad surgeon and employees should be of the most confidential and agreeable nature. When a surgeon is summoned to attend an employee he should ascertain first whether it is a medical or surgical case. If surgical, he should go prepared to cleanse and dress the wound in the most careful manner, in order to prevent any infection. Should it be found necessary to scrub the parts with a brush, the lacerated or cut wounds should be filled with antiseptic gauze while the brushing process is going on, so as to carry no germs from the surface of the skin into the wound, which is often done if this precaution is not taken. After the wound has been cleansed and dressed, the patient, if the injury is serious, should be sent to the hospital, with a note to the surgeon in charge explaining what has been done. If the surgeon is called to a medical case he should

respond as quickly as possible, using as much care and gentleness in his examination and treatment as if it were a private case paying a good fee. Should the surgeon not show proper attention to a railroad man, he feels it much more keenly than if he were a private patient. We should always remember that "what is worth doing at all is worth doing well."

The relation of the surgeon to the railroad company is sometimes misunderstood. Surgeons are liable to error, as they may feel that they cannot serve well both the patient and the railroad company. In a case of accident the surgeon should always make a very careful examination, to determine if possible the precise nature of the injury. After the examination has been concluded the surgeon should render an honest and conscientious report. The patient should not expect the surgeon to do dishonest work for him, which he himself would not do. There is no easier way for a patient to lose confidence in the surgeon than for him to show a disposition to be unfair. A patient places his life in the surgeon's hands, and he must deal justly with him. On the other hand, the railroad company does not expect a report biased in their favor. What they want is to know the full extent of the injury and the probable time of recovery. A settlement with the injured party is based on the surgeon's opinion, and if the opinion is given honestly he has done all that can be expected of him.

The railway surgeon more than anyone else should be a thoughtfully conservative man. He should judge clearly and weigh carefully the ultimate probabilities. Again and again is he confronted with conditions which call for the exercise of the coolest judgment and the most careful consideration of the final consequences of what he must do at once. On him will often fall the responsibility which subsequently may mean much to the company in whose service he is enlisted; much of credit or much of blame. True, there is very often but little time in which to consider and weigh the pros and cons, and it is for that reason that I wish to impress upon you the importance of reasoning conservatism. One may always take away a little more, but one cannot replace what has been removed. Immediate amputation may seem to be imperatively demanded; yet if we temporize and watch the patient carefully, we may find that this more conservative treatment will result in the saving of a good and fairly useful limb. My rule is to cleanse the wound as well as possible, and control the hemorrhage; the slight oozing, as a rule, will stop on packing the wound gently with antiseptic gauze, slight pressure being made—not too great to interfere with the circulation. After this is done I cover the limb for some distance above the injury with antiseptic gauze (I prefer bi-chloride, slightly moistened), then apply a roll of cotton over the gauze and cover the whole limb with a large piece of oil silk. This can be held firmly in position by the roller bandage or with adhesive strips, as the surgeon may elect. By this method the normal temperature of the lower portion of the extremity is maintained by the natural heat from the upper part. I let this dressing remain on the limb for at least 12 hours, then remove it and examine the limb. If there is a sufficient number of blood vessels remaining, collateral circulation will indicate to the surgeon whether nature is capable of repairing the injured parts. The time for shock is now probably past, and we are able to determine whether amputation should take place or an attempt should be made to save the limb. We should always keep in view the fact that a workingman's limbs are his stock in trade, and if we take them away from him we deprive him of his capital. The limb may not be quite as serviceable as originally, but the laborer will manage in some way to make a living, while if his limb has been removed he feels that he is a pauper and of but little use to himself or anyone else. In a great majority of such cases men become beggars and loafers, and make no effort to earn their own living. Let us act on the side of humanity, and be guided by conservatism in all cases of injury.

EARLY OPERATION OF GALL-STONE DISEASE.*

By EMMET RIXFORD, M. D., San Francisco.

THE surgical treatment of gall-stone disease is a subject so extensive and one whose literature is so vast that it is a sheer impossibility to make an adequate presentation of it in a single paper. It seemed best, then, to select for this occasion a single phase of the subject and I have accordingly chosen as most appropriate for discussion before a society composed of both physicians and surgeons, a subject which presents common ground on which all the members may meet; viz., "The Value of Early Operation in Gall-stone Disease." Matters of the more intimate indications, in particular pathological conditions and the indications for particular operative procedures, are more appropriate for detailed discussion before societies of surgeons, but since physicians come into contact with cases of gall-stone disease before the surgical specialists see them, a free discussion of this common ground may be well timed; not that I can say much that is new to this audience, or that has not been said before, but I would say that as a conclusion drawn largely from my own operative cases, limited though they be, it is evident to me that there is need for wider conviction as to the advantages of early operation in gall-stone disease.

While the etiology of gall-stones is being rapidly worked out by the experimental pathologist, the symptomatology and the diagnosis by physician and surgeon together, the chief advances in the treatment have been by the practical work of the abdominal surgeon. A few great names stand out pre-eminent in gall-stone surgery, and it is a matter of considerable national pride that many of them are Americans. I would mention Courvoisier, Langenbuch, Robson, Kocher, Kehr, Richardson, Fenger, Halsted, Murphy, Davis and Mayo brothers.

The most hurried glance through the history of gall-stone surgery will show a decided tendency on the part of operators to choose their procedure and the time of operation more and more in view of the late and more serious complications and sequellæ of gall-stone disease. In this field, perhaps more than any other, simplification of procedure means anticipation and attack before the more serious complications have arisen; it means seizure of the time for removal of the gall-stones, which are in reality foreign bodies, while the conditions surrounding them are still simple. Richardson has called attention to the analogous conditions presented by gall-stone disease and appendicitis and to how early operation in each case will prevent the more dangerous later conditions. Ochsner has emphasized the fact that a large percentage of cases of gastric troubles have their origin in the irritation produced by gall-stones which may manifest themselves in no other way, and argued for the early removal of such gall-stones.

While the mere presence of gall-stones in the gall-bladder does not constitute gall-stone disease, and may be looked upon as the result of an infectious inflammation, rather than the primal cause, still the history of great numbers of cases shows the vastly greater frequency of attacks of cholecystitis and cholangitis in the presence of gall-stones than in their absence. Therefore gall-stone disease may be looked upon as a group of essentially surgical affections based upon the mechanical conditions produced by the presence of gall-stones. Such a mechanical cause can be removed, so far as we now know, only by mechanical means. Internal medication has meaning in prophyllaxis because much can be done by rational treatment and proper living to maintain a high standard of general health and thereby diminish the probability of the formation of gall-stones; but after gall-stones have once formed, about all that can be accomplished by medical means is the greater or less relief afforded as to certain symptoms by lessening in-

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

testinal irritation. But this relief is seldom, if ever, cure.

The passage of a biliary calculus into the intestine with the enormous relief from the symptoms caused by the calculus in its descent, is often heralded as a cure; but the history of such cases shows too often that there are other calculi left behind which later cause more trouble than that which passed. It is the rarest thing for gall-stones to be formed singly. While single large stones are often enough encountered, they generally show evidences of having had companions; furthermore, the accepted theory of the formation of biliary calculi almost precludes the possibility of the formation of single calculi, whether they be formed about colonies of attenuated bacteria as nuclei or bits of debris cast off from the mucous membranes, both being the result of infection of the gall-bladder and therefore multiple. The passage of one calculus is no guarantee that all that are present will pass, even if they be all of one size, as they often are, having been formed as a result of the same infection. But every pathologist and every surgeon knows from experience that in a great proportion of cases there are two or more "crops" of gall-stones, so to speak—a series of small ones co-existing with one or more series of larger ones—and the passage of a small gall-stone is still less a guarantee that the larger ones will pass. Moreover, small gall-stones produce as serious pathological conditions as larger ones and even the very passage of small gall-stones is not at all an innocent matter, it is, for example, the commonest cause of acute and chronic pancreatitis. (Opie.)

Again, it would seem that undue weight is given the idea that the vast majority of people harboring gall-stones in their gall-bladders have no trouble attributed to them. Kehr speaks of only 5% having definite painful attacks. Robson, however, calls attention to a large class of cases in which "chronic invalidism" is due to quiescent gall-stones, and doubtless lesser degrees of invalidism are more common, still. It would seem that in cases with quiescent gall-stones there often are symptoms indicating the condition if only the physician has the diagnostic acumen and the industry to find them. Perhaps more often the symptoms are recognized but are attributed to some other cause. Such figures as those of Riedel, in which he estimates that there are 2,000,000 people in Germany with gall-stones, are gathered from post-mortem statistics and do not apply very definitely in the matter of symptomatology, i. e., we cannot say that the 95% have had no trouble caused by them. I have no doubt that if we as medical men were more on the lookout for gall-stones as the cause of obscure digestive disturbances we should find them far oftener than we had suspected, and that thus finding them we would be enabled by a simple and comparatively safe operation to permanently relieve the patient.

I have mentioned prophyllactic medication; there is such a thing as prophyllactic operation in gall-stone disease, and by that I mean operation at a time before serious pathological conditions have arisen. I think that the surgical world is pretty well agreed, in practice, as to the advisability of removing gall-stones when found in the course of operations on other parts of the abdomen, whether there have been symptoms atributed to them or not. I would go a step further and advise that whenever gall-stones are found, whether suspected or not, as for example, by the X-ray, the case should be seriously studied with reference to the symptomatology and to the removal of the gall-stones, and just as the surgeon who opens the abdomen for any cause examines the appendix as a routine procedure and removes it (having proper authority to do so) whenever it presents anything pathological, or contains a concretion or mass of fecal matter, or lies in dangerous proximity to any diseased organ, so also should he examine the gall-bladder for the presence of gall-stones as a routine procedure, and finding them should remove them by cholecystostomy, provided, of course, that there be no indication to the contrary.

The mortality in the removal of gall-stones by cholecystostomy in uncomplicated cases is extremely small—less than 1% in Mayo's statistics—and the probability of gall-stones reforming in the gall-bladder when this sac is left behind must be exceedingly small—not a single case discovered in 2,000 operative cases collected by Mayo, which figure doubtless includes many cases in which there had been more or less injury to the gall-bladder.

Such prophylactic operation, and in fact the generally early removal of gall-stones, will in the great majority of cases prevent the long train of more or less serious symptoms which are more than likely to follow, as well as the less common but extremely dangerous late consequences, such as septic cholangitis, empyema of the gall-bladder, acute phlegmonous cholecystitis, perforation and peritonitis, acute and chronic pancreatitis, progressive fat necrosis, stricture of the bile-ducts, intestinal obstruction and many others, not the least of which is the development of carcinoma of the gall-bladder or bile-ducts. The suffering and the mortality from such conditions are too well known to require more than mention.

Finally, from a purely operative standpoint, the late operation is vastly more difficult and dangerous than the early operation because of the presence of tough adhesions, the depression due to cholemia, the tendency to hemorrhage, the necessity for haste because of badly borne anesthetic, the lessened ability of the patient to withstand surgical shock, the presence of highly infectious material in the gall-bladder, etc., etc. Again, complete restitution to the normal cannot be expected to take place if operation is delayed till permanent damage is done the bile passages (contracting scars, strictures, etc.).

To refer again to analogous conditions in appendicitis, I would say that quite in accordance with surgical practice in cases where one or more attacks of appendicitis have been recovered from, modern surgery should consider seriously the propriety of opening the abdomen in all cases where there have been one or more definite attacks of gall-stone colic and the gall-stones removed, for future and more dangerous attacks are quite as apt to occur in the latter as in the former. I do not say that all such patients should be operated upon, but that they should be studied with reference to the advisability of operation, and the operation be done in the absence of definite contra-indication. Furthermore, serious consideration should be given cases of obscure and chronic digestive disturbances, so-called bilious attacks, reflex vomiting, recurrent attacks of indigestion, etc., as to whether the symptoms may not be caused by more or less "quiescent" gall-stones and in the absence of definitely assignable and more probable cause, the abdomen should be opened and the gall-bladder and the bile-ducts explored.

I am led to speak thus strongly as the only logical conclusion to be drawn from a study of my own operative cases. A very large proportion of my operations for gall-stone disease have been late operations and in nearly all of the cases early incision would have shown the presence of the calculi, would have led to their removal and would have prevented the long periods of great suffering and a large mortality. In fact, my mortality thus far has been entirely in cases in which operation was done late in the history of symptoms and after serious complications had arisen as a result of the long-continued presence of the gall-stones.

Furthermore, nearly all of these patients gave the history of symptoms which we can now see would have justified exploratory incision. The delay was not always due to the fact that the patients did not consult physicians; more often than not they had been for long periods under the care of competent physicians sometimes for recurring stomach troubles, and sometimes under the definite diagnosis of gall-

stone disease in one form or another, had been kept on restricted diet, salines, olive oil, etc., for long periods of time. Their symptoms were often relieved, but the final serious complications were not indefinitely postponed. As illustrations of the foregoing, I would report the following 15 cases:

Case I.—**Recurrent attacks of abdominal inflammation, semi-invalidism, exploratory incision, contracted gallbladder, carcinoma, cure.**

Mrs. C., aged 68, widow of a physician, had had 4 or 5 attacks of inflammation variously diagnosed as appendicitis, peritonitis, etc. The attacks would last several days and were characterized by fever, rapid pulse, pain, tenderness on right side of abdomen. For 5 or 6 years she had suffered with indigestion, stools often fatty, more or less boring pain in right abdomen. One physician thought there was some lesion of the pancreas. Patient was never jaundiced, and her nutrition continued good. Examination showed simply slight tenderness over the cecum; no tumor. Incision showed the appendix normal but it was removed according to request of patient. Further incision over the gall-bladder showed that organ cicatrized and surrounded with dense adhesions, liver notched, a large stone in upper part of cystic duct. The gall-bladder was freed, and removed with the stone, the cystic duct being closed with catgut ligature, and the abdomen closed. Complete relief followed. Examination of the gall-bladder revealed a small carcinoma in its inner wall. It is now more than 6 years since the operation and the patient continues in perfect health. There is no sign of recurrence.

The case may be looked upon as one of accidental cure of carcinoma of the gall-bladder, by an operation done by sheer good luck just in time. Early operation would have prevented the formation of the carcinoma. Mayo has reported 3 similar cases 3 years after operation and 2 recent ones.

Case II.—**Frequent attacks of "biliousness" for many years, some accompanied with pain, sudden choledochus obstruction, operation, contracted gall-bladder, extensive adhesions, chronic cholemia, hemorrhage, death.**

Mrs. B., large fleshy woman, age 53, had had frequent attacks of so-called "biliousness" sometimes with pain, attributed to over-eating and too rich food, extending over many years and for which she had had medical treatment. Had never been jaundiced. Two weeks after a rather severe attack of colic, she had another one followed by jaundice indicating stone in the common duct. To exclude catarrhal jaundice patient was kept on liquid food and given salines; she was also given pilocarpine to exclude a hypothetical plug of mucus which might possibly have been obstructing the common duct, the patient becoming weaker and weaker day by day with the intense jaundice, and coal-tar narcotics which were given to produce sleep, and the evident sepsis as shown by fever, leukocytosis of 15,000, etc. Operation was done only as a last resort 4 weeks after the jaundice became complete and the patient was all but in extremis. Incision showed a mass of adhesions completely matting together colon, omentum, duodenum and lower surface of the liver. After cutting these sufficiently to expose the apex of the gall-bladder the latter was found cicatrized over a number of small gall-stones. Attempt was made to remove the gall-bladder but separation of the dense adhesions caused so much bleeding that the attempt had to be abandoned, the gall-bladder was opened and the stones removed with what was possible of the mucous membrane of the gall-bladder. The common duct was opened and 4 large stones removed. A drainage tube was inserted and gauze pack, and the oozing surface of liver was seared with the Paquelin cautery. As the wound was being closed, the patient collapsed and died within half an hour after leaving the operating table. Examination of the wound area after death showed that there had been no concealed hemorrhage, that the common duct had been opened 3 inches above the papilla. Two inches above the papilla there was a marked thickening evidently the point of lodgment of the large obstructing stone with dilatation of the duct above.

This case is a good example of the immense technical difficulties and the dangers encountered when operation is delayed in cases of gall-stone impaction. The whole train of symptoms could have been avoided by removal of the stones before they left the gall-bladder, and the patient would have been in better condition to withstand the shock had operation not been delayed so long after jaundice came on.

Case III.—**Frequent attacks of epigastric pain during 16 years; chronic pancreatitis; fat necrosis; sepsis; death.**

Mrs. B., age 59, very fleshy, had weighed 257 pounds, had had frequent attacks of epigastric pain during 16 years, characterized by vomiting, without jaundice, but with fever and followed by tenderness. Nutrition remained generally good, though digestion was more or less imperfect and patient suffered from frequent headaches. She was sent to the surgeon because of a tumor, which was discovered in the epigastrium. The gall-bladder region was tender, and a hard immovable irregular tumor was present in the epigastrium. It was thought to be carcinoma. Exploratory incision was undertaken because of a recent attack of agonizing pain which was thought to be due to gall-stone impaction and because of the indication to forestall pyloric stenosis if such should be impending. It showed the gall-bladder cicatricial and filled with gall-stones; stomach and pylorus free; the tumor lay behind the peritoneum in the region of the pancreas. On opening the gall-bladder bile flowed and it seemed indicated to unite it to the small intestine to prevent choledochus obstruction by the growth of the tumor. This was done with a Murphy button after removal of the gall-stones, but on exposing the tumor by section of the peritoneum it was found to be a great mass of necrotic fat. The patient died on the sixth day of sepsis in the region of the fat necrosis without peritonitis, the infection being with staphylococci and colon bacilli.

While in this case the death was due to sepsis, which was perhaps preventable, it is significant that the attacks of epigastric pain, with more or less fever and vomiting recurring at frequent intervals for 16 years, were never attributed to gallstones. Undoubtedly the pancreatitis and fat necrosis were due to the damage done by passing gall-stones, and could readily have been prevented by a timely operation. The common duct was thickened evidently by old inflammation.

Case IV.—**Chronic invalidism for 17 years; frequent attacks of indigestion with epigastric pain and tenderness; rupture of gall-bladder; localized abscess.**

Mrs. M., age 51, had been a confirmed invalid for 17 years suffering from frequent attacks of indigestion attributed to over-eating, had constant medical attendance, and was kept on one diet after another with practically no benefit. On one occasion she had been in a hospital for several months and was fed on malted milk and similar preparations. After an especially severe attack with some pain, vomiting and local soreness a tender swelling appeared in the right upper abdomen, evidently a localized abscess, which was thought to be of appendiceal origin. Operation at the end of 2 weeks showed distended gall-bladder with abscess of considerable size between it and the liver; peritoneum free. The gall-bladder was stitched to the parietal peritoneum and opened after 24 hours, several ounces of pus being removed. Two weeks later, when the acute process had subsided, the wound was enlarged and 7 immense gall-stones were removed from the gall-bladder, cystic duct and abscess cavity. Although the gall-bladder had been sutured to the peritoneum and not to the skin the fistula failed to close and after 6 months the gall-bladder was removed entire. No additional stones were present, the fistula having remained open because of the chronic inflammation of the wall of the gall-bladder. Patient made an uninterrupted recovery and has been free from her digestive troubles up to the present time—3 years later.

The history of the case makes it evident that the digestive disturbances were due in large measure to the irritation of the gall-stones, and would have ceased had they been removed; the very dangerous conditions which subsequently developed would thereby have been prevented.

Case V.—**Typical gall-stone colic 5 times in 25 years with passage of gall-stones; frequent attacks of less severe pain: constant soreness.**

Mrs. B., age 56, had typical gall-stone colic 25 years ago with passage of great numbers of small stones; 4 subsequent attacks; has been obliged to live on restricted diet ever since, an attack of more or less severe pain invariably following taking of fruit and other easily fermentable foods. She has had more or less constant epigastric pain and tenderness. Patient was very fat, showed no tumor, no jaundice but marked tenderness in region of gall-bladder. Operation undertaken because of a recent severe attack of biliary colic, showed the gall-bladder contracted and filled with stones, the common duct being free. Cholecystectomy was performed but was made very difficult by reason of the anesthetic being badly borne and by very dense adhesions. The cystic duct was drained. Save for some distension, the abdomen presented no untoward symptoms but patient developed a broncho-pneumonia to which she succumbed on the fifth day. Partial autopsy showed broncho-pneumonia, fatty heart and some areas of chronic nephritis.

Case VI.—**Chronic invalidism: operation for strangulated hernia; acute phlegmonous cholecystitis; acute hemorrhagic pancreatitis; extensive fat necrosis; death.**

Mrs. M., age 60, very fat, had suffered for many years with indefinite digestive disturbances, bilious attacks with more or less pain; entered Lane Hospital and was operated on for strangulated umbilical hernia. At the end of 3 weeks, after normal wound healing, when patient was about to leave the hospital she was taken with persistent vomiting. There was no cause evident. She complained of severe pain across the abdomen and rapidly went into collapse, perspiring freely and remaining very weak for some hours. There was no fever and the pulse was but 80 though weak. At the end of 24 hours the pulse rose to 130, the temperature remaining 99°. Next day the pulse was still 130 and the temperature rose to 103°. Patient was given small doses of morphine sufficient to quiet the pain

and repeated enemas containing asafetida in the hope of moving the bowels. Vomiting continued and the abdomen became considerably distended and tender. There was no jaundice and the most obvious diagnosis was intestinal obstruction following the operation for hernia. Operation was demanded in spite of the considerable cardiac weakness and nephritis which was present. Incision was advised but patient consented only after another 24 hours but then faint jaundice appeared and the cause of the symptoms become evident. Karlsbad salts were given and the patient supported by rectal feeding. On the fourth day patient seemed better, the temperature falling to 98.4° and pulse to 120, but towards evening the temperature rose again and on the fifth day patient collapsed, had severe chill, and 3 hours later expired.

Autopsy made by Dr. Ophüls showed acute suppurative cholecystitis, acute cholangitis, gall-bladder filled with a large number of small gall-stones, some stones in cystic duct, papilla not lacerated, choledochus free, no stones in intestine, acute hemorrhagic pancreatitis, extensive fat necrosis, fatty heart, necrosis of renal epithelium with some areas of old nephritis. Cultures showed colon baccilli in gall-bladder and cystic duct, colon baccilli and short rods, negative with Gram, in pancreatic duct.

Case VII.—**Repeated attacks of gall-stone colic; passage of gall-stones; two visits to Karlsbad; chronic pancreatitis; extensive fat necrosis; stenosis of mesenteric vein; gangrene of bowel.**

Mr. R., age 53, for many years had recurring attacks of epigastric pain at times very severe; 3 years ago after a particularly severe attack became jaundiced, was in a sanitarium in San Francisco for some weeks; passed a number of gall-stones about a quarter of an inch in diameter. He then went to Karlsbad where he temporarily improved. Ever since then he has had frequent attacks of epigastric pain similar to the original attacks, with local tenderness and he got to taking morphine pretty regularly for the relief it gave him. He went to Karlsbad a second time remaining about 3 months, but was not perceptibly improved. His nutrition continued good however so that he recently weighed 225 pounds. On the whole his abdominal discomfort pretty continuously increased till finally without special indiscretion on his part he had sudden severe pain in the lower abdomen with rapidly progressing symptoms of peritonitis. Morphine had to be used in full doses; nausea was constant; the abdomen became rapidly distended, hiccoughs continuous; pulse 128 increasing; temperature 100°; tenderness across lower abdomen in spite of the morphine; complete constipation; great abdominal rigidity. The abdomen was opened as soon as patient could be brought to San Francisco, (on the third day of the attack) patient being by this time slightly jaundiced, pulse 130, leukocytes 11,400. On opening the peritoneum a considerable quantity of thin, brown foul-swelling serum was evacuated and a large loop of the small intestine was seen to be gangrenous. Resection was out of the question because of the condition of the patient. The mesentery was therefore cut across (the absence of bleeding suggested thrombosis of the mesenteric artery) and the loop simply hung out of the abdomen. The intestinal wall was greatly thickened as if by chronic congestion, and the line between the gangrenous portion and the sound portion was not definite. Palpation of the gall-bladder showed its walls thick and a number of gall-stones in the cystic duct. These were milked back into the gall-bladder and the abdominal wound closed about the protruding intestine.

The intestine was opened next morning and both ends irrigated to a depth of 18 inches and a quantity of magnesium sulphate solution injected. Retching continuing the stomach was washed out evacuating about a quart of dark fluid. Patient became continuously weaker and died in the afternoon.

Autopsy by Dr. Ophüls showed fat necrosis extending beneath the posterior peritoneum as far as the appendix. One process of the cavity containing the necrotic fat surrounded and constricted a large radicle of the portal vein, the lumen remaining about 2 mm. in diameter and filled with a blood clot not many days old. The gall-bladder contained 13 gall-stones averaging 1 cm. in diameter and myriads of minute stones, many of which were found in the common and hepatic ducts. The hepatic duct was dilated to 3 times its normal diameter, the lower portion of the common duct almost obliterated by cicatricial contraction and the pancreatic duct open.

Whether the fat necrosis was due to the attack of 3 years before, when stones were first passed, or to subsequent trouble, is scarcely to be determined; nor can it be said now that the diagnosis could have been made before that time. Still there can be no reasonable doubt that had the gallstones been removed before they left the gall-bladder the whole clinical picture would have been different.

Case VIII.—**Recurrent attacks of vomiting, one persisting for six weeks, gall-stones removed from cystic duct, recovery.**

Mrs. J., age 52, had always been a strong hard working woman; for several years back had had occasional attacks of indigestion with persistent vomiting. No typical colic. When feeling perfectly well and without any assignable cause, patient began to vomit. She had no pain, no chill, no fever and no icterus but vomited continuously for 5 weeks in spite of frequent lavage of the stomach and other appropriate treatment. Patient was kept alive by rectal feeding, but rapidly emaciated. The vomitus at first containing a large proportion of bile, later became clear and finally chocolate colored; it was generally acid and would foam on addition of bi-carbonate of soda. Castor oil was passed by rectum which, with the absence of abdominal distress and distension, excluded intestinal obstruction. Pelvic examination was negative, there was no tumor of the gall-bladder and nothing to be made out except a slight degree of local tenderness over the gall-bladder.

Incision showed gall-bladder practically normal, covered with shining epithelium. Two gall-stones lay impacted in the upper part of the cystic duct. Their removal by cholecystectomy sufficed to relieve the persistent vomiting. Patient retained liquid food given by stomach within 24 hours and had no subsequent digestive trouble. The fistula failed to heal, however, and required closure some months later, since when (2 years) patient has been in excellent health.

Case IX.—**Sick headache for many years; frequent attacks of colic and acute indigestion for 15 years; nearly constant distress in upper abdomen; pancreatic cyst; drainage; cholecystostomy, recovery.**

Mrs. J., age 54, had suffered since childhood with sick headaches and for 15 years with acute indigestion, "bilious attacks" coming on every few days, for which she was accustomed to wash out her stomach and with great relief. In fact she learned to ward off the attacks by washing the stomach. Attacks of violent straining and constant pulling sensations in the upper abdomen caused a great deal of distress. She lived on very restricted diet; the least variation from it would bring on an attack. On one occasion 10 years ago she was obliged to go without food for 16 days, a tender tumor appearing in the right side below the ribs (probably distended gall-bladder) but this subsided after a time. Twice within a year she had typical biliary colic so severe as to require morphine.

Four months before coming under my care she discovered a tumor in the upper abdomen a little to the right of the median line. This has gradually increased since. Examination showed a spherical tumor 5 or 6 inches in diameter of the consistency of a tense cyst, situated between umbilicus and navel. It was evidently a cyst of the pancreas. Operation confirmed the diagnosis but showed a gall-bladder filled with gall-stones but otherwise not much damaged; bile ducts free. The stones were removed by cholecystectomy, and the pancreatic cyst drained. The pancreas itself seemed harder than normal. Recovery was uneventful and up to the present time, 2½ years, patient has enjoyed perfect health, has gained 30 pounds or more in weight and has been free from the pulling and straining previously complained of and can eat any ordinary food with impunity.

Whether there is any etiological relation between the gall-stones and the pancreatic cyst is not to be definitely determined, but the cyst certainly followed the gall-stone colic as well as the chronic pancreatitis.

Case X.—**Acute cholecystitis; cholecystectomy; recovery.**

Mrs. C., aged 40, had generally had good health, and gave a history of nothing more than indefinite digestive disturbances. When feeling perfectly well had sudden attack of inflammation in the right upper abdomen, with pain, tenderness, muscular rigidity, tumor of gall-bladder; leukocytes 18,000. On the sixth day when the inflammation had somewhat quieted down the abdomen was opened, the thickened gall-bladder was removed and the cystic duct drained. The gall-bladder contained half a dozen large stones; the ducts were free. Convalescence was uninterrupted; patient left hospital on the 21st day.

Case XI.—**Frequent attacks of gall-stone colic; complete choledochus obstruction; cholecystectomy; carcinoma; death.**

Mrs. B., age 50, had had frequent attacks of typical biliary colic besides much dull pain for which she was obliged to take codeine; was operated upon in Chicago, the gall-stones removed by cholecystostomy. Subsequently, jaundice appearing, the common duct was opened and a stone removed from it and cholecystectomy performed by the same surgeon. Patient was well for 3 years when jaundice came on again without pain, chill or fever. Treatment was instituted on the supposition that the jaundice was catarrhal.

The choledochus obstruction was complete and continued without cessation so an exploratory incision was determined upon. It showed a cyst pressing on the hepatic duct but exploration of the common duct through an incision and again through the duodenum showed no other cause for the obstruction than the cyst. This was evacuated and drained and patient was greatly relieved for some months. The contents of the cyst on examination showed epithelial debris which suggested carcinoma. Gradually the jaundice returned (it had never quite disappeared but the itching was relieved) but the stools always contained some bile. Patient died 10 months later. Autopsy showed extensive carcinoma of the liver, but not involving the main ducts.

Case XII.—**Several attacks of biliary colic; long periods of indigestion; chronic cholecystitis; choledochus obstruction; removal of stone; recovery.**

Mrs. V., age 50, had suffered numerous attacks of colic and digestive disturbances for several years. Complete choledochus obstruction came on and after 4 weeks patient came to operation. The gall-bladder was contracted over a number of small stones and was removed and a large stone obstructing the common duct was removed by incision. The duct was drained and convalescence was

without incident. Patient was seen 6 months after the operation and was completely relieved.

Case XIII.—**Chronic indigestion; frequent attacks of vomiting; some dull pain; one or two attacks of colic; rupture of gall-bladder; cholecystectomy; recovery.**

Mr. J., age 40, had suffered with digestive troubles for 20 years, had had frequent attacks of vomiting without apparent cause, some dull pain quite persistent, one or two attacks of severe colic, no jaundice. Patient had to live on liquid food a good part of the time and finally had to give up his business. One day he was seized while on the street with violent pain in the abdomen which required a grain of morphine to control; the abdomen became rapidly distended and tender throughout and the pulse rose above 120. After 24 hours, when seen by me, the abdomen was softer and the bowels had been moved with castor oil. The greatest tenderness was over the appendix and rectal examination showed tenderness of the pelvic peritoneum. A diagnoses of acute appendicitis was made and patient brought to hospital for operation. Incision showed the appendix normal but it was removed according to patient's request. There was some peritoneal fluid stained with bile which showed that the gall-bladder had ruptured but the glistening peritoneum excluded severe peritonitis. The incision was closed and the gall-bladder exposed by a second incision. Being full of stones and having perforated at its apex it was removed, and the cystic duct drained. Convalescence was uneventful and since then patient has been greatly relieved and can now eat ordinary food with impunity.

The bile in the peritoneum and the contents of the gall-bladder showed no bacteria in culture and in smears and the peritoneum showed no reaction when exposed in the operation.

Case XIV.—**Recurrent cholecystitis; colic; chronic cholemia from choledochus obstruction; cholecystectomy; exploration of common duct; death.**

Mr. C., age 60, with large fat abdomen had had years of digestive disturbances, with colic; had passed gall-stones; was operated upon 2 years ago by a San Francisco surgeon who removed some 50 gall-stones from the gall-bladder by cholecystostomy. Both fistula and jaundice persisted, making it evident that there was a stone in the hepatic duct which had been overlooked. Operation during cholemia of 2 years duration was further made very difficult by the extensive and very dense adhesions; the fat abdomen, and because of a weak heart; the anesthetic was badly borne. The common duct was opened, a stone 1 cm. in diameter was removed, the gall-bladder also. The cystic duct was drained. Patient did not rally from the depression of the operation though the blood lost was not great, and died next morning. Autopsy not permitted.

Case XV.—**Chronic indigestion; frequent attacks of colic; tumor; cholecystectomy; recovery.**

Mr. H., age 55, had had indigestion for years, often in painful attacks; was obliged to live on restricted diet; at times took nothing but milk for weeks; was never jaundiced. Examination of stomach contents on one occasion showed absence of hydrochloric acid. There was some dilatation, of the stomach and an irregular tumor was evident to the right of the median line, which was thought to be carcinoma of the pylorus. Incision over the tumor showed it to be a distended gall-bladder covered with adherent coils of intestine and filled with gall-stones; the ducts free. The gall-bladder was removed and the cystic duct drained. Recovery was uneventful, patient leaving hospital in ambulance at the end of a week, the fistula closing soon afterwards. Since then patient has been able to eat all sorts of foods without distress although it is but a few weeks since the operation.

A brief summary of these 15 cases is appended.

The average duration of symptoms definitely attributable to the presence of gall-stones before operation in these cases was 12 years. I have no doubt that if the cases had been carefully studied from the beginning the diagnosis of gall-stone disease could have been made much earlier. Of the 15 cases, 8 recovered and 7 died. Three of the deaths may be ascribed to the operation, but they were all in very fat people, one of hroncho-pneumonia and two of hemorrhage and shock, both cases with prolonged icterus, and extensive adhesions, and both cases so depressed that they would have died very shortly without operation; in fact, in both cases operation was done as a last resort. The same is true of a fourth case in which multiple abscesses developed after operation at the site of extensive fat necrosis. The other causes of death were acute hemorrhagic pancreatitis, stenosis of mesenteric vein with gangrene of the bowel as the result of fat necrosis and carcinoma of the bile ducts, one case each.

These 15 cases exhibited the following complications: chronic cholecystitis with cicatricial contraction of the gall-bladder, 6; carcinoma, 2 (one cured); perforation of the gall-bladder, 2; chronic cholæmia, 2; acute hemorrhagic pancreatitis, 3; chronic pancreatitis with fat necrosis, 4; pancreatic cyst, 1; acute phlegmonous cholecystitis, 2; persistent uncontrollable vomiting, 1; cicatricial stricture of choledochus, 1; adhesions dense and extensive enough to make operation hazardous, 7. In these complications may be seen the determining cause of the mortality in most of the seven fatal cases, and the immediate cause of most of the suffering in the whole series. Such complications can be prevented by timely operation, and by that alone.

THE SURGICAL TREATMENT OF PANCREATIC COMPLICATIONS IN GALL-STONE DISEASE.*

By ANDREW STEWART LOBINGIER, M. D., Los Angeles.

AS EARLY as 1892 Mr. Mayo Robson had observed the frequency with which gallstones in the choledochus were associated with enlargement of the head of the pancreas. Körte had called attention to the same fact, and Lancereaux, in 1898, expressed his belief that a stone lodged in the ampulla of Vater was a strong etiologic factor in the infection of the pancreas. In 1901 Opie published his brilliant clinical observations and subsequent experimental studies on the partial obstruction of the ampulla by a small gallstone. He was the first to demonstrate the influence of a small-sized concretion in producing regurgitation of bile through the duct of Wirsung, with a sequel of pancreatitis. Since then much of the pathology of the various forms of pancreatitis hitherto obscure has become well defined. Recent contributions of a clinical character, which are continually appearing in the literature, have added greatly to the interest in the study of the pancreas in disease.

The necessary limits of this paper impose a very difficult task, and compel the most cursory treatment of a field possessing a wealth of pathologic and surgical interest.

Diagnosis. The symptoms of acute hemorrhagic pancreatitis may be so acute and agonizing as to overwhelm the patient. The attack is ushered in with violent vomiting, intense pain in the epigastrium, and occasionally collapse. The recti become rigid, and within 24 hours a tumor forms above the umbilicus. This tumor may not be apparent if the rigid recti and intense pain render the abdomen impalpable, or if a tympanitic stomach intervenes. In the differential diagnosis, phlegmonous cholecystitis, perforation of the stomach or duodenum, intestinal obstruction or acute gangrenous appendicitis will need to be considered. Each of these can usually be excluded by the anamnesis.

Reginald Fitz has given us an intelligent picture in saying that, "Acute pancreatitis is to be suspected when a previously healthy person or sufferer from occasional attacks of indigestion, is suddenly seized with violent pain in the epigastrium, followed by vomiting, collapse, and in 24 hours by a circumscribed epigastric swelling, tympanitic or resistant, with a slight rise of temperature."

Halsted regards excessive pain and cyanosis of the face and abdomen as typical. The pain which at first was definitely in the epigastrium, later becomes general; the vomiting is a dark bile-stained hemorrhagic fluid; the temperature is erratic and the pulse rapid and weak. Intestinal obstruction from pressure of the effusion on the duodenum may complicate the symptom complex. Fat may be found in the stools and sugar in the urine. The former will depend upon the dissemination of the pancreatic ferment in the tissues; the latter upon the involvement of the islands of Langerhans.

Treatment. In the acute form of pancreatitis, commonly known as acute hemorrhagic, it will be necessary to remember that in certain of the less severe cases the patient may recover without surgical interference. On the other hand there is a type representing the other extreme, where the most prompt and

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skillful operative measures prove futile, or where the hemorrhage is so great as to overwhelm the patient before he can be placed in a hospital.

There is a class, however, which presents a more favorable aspect, where the immediate shock, and the extreme pain and vomiting can be successfully combated, and the patient energetically prepared for an early evacuation of the blood and infected exudate.

The mortality in acute hemorrhagic pancreatitis has been great. It can only be lowered by a prompt and accurate diagnosis and by a more active preparation of the patient for early operative relief. The blood which exudes becomes speedily infected, and the absorption from this highly toxic culture will overwhelm the patient unless early and skillfully applied drainage is estabished. There is no intra-abdominal condition where adequate and modern methods of drainage are more imperative.

At this time it would be impracticable to interfere with any obstruction which may be in the ampulla. Every effort should be exerted toward expeditious and effective evacuation of the clot and establishing drainage. The site of drainage must be determined by the conditions found in each case. As a rule the effusion is more accessible anteriorly through the gastrocolic omentum. Large Penrose drains surrounded by a well-placed cuff of mildly iodoformized gauze is most effective. Mr. Robson prefers dorsal drainage through a stab-wound in either the right or left costa-vertebral angle. Being extra-peritoneal, there is much to recommend it, unless the peritoneum is ruptured and the exudate is free in the abdominal cavity. In the latter event the cavity should be freely flushed with sterile water, Penrose drains placed in the pelvis as well as posterior to the stomach, and the patient put in the semi-sitting posture.

It has been the privilege of the writer to observe 3 cases of acute hemorrhagic pancreatitis. None of the patients was operated upon, and all of them came to autopsy. Two of them were correctly diagnosed, but shock was too great to admit of operation. One lived 2 days, one 3, and one 5½ days, after the acute seizure. The latter case was not correctly diagnosed. It presents points of interest making it worthy of record, and is reported below:

R. E., 52 years of age, was attacked suddenly while bending over at work, with acute colicky pains in the epigastrium. He vomited several times, and became faint from the intense pain, which was finally relieved by injections of morphia. He was put to bed, and the following day the pain recurred, but in milder form. The vomiting was more frequent, though less violent. A slight swelling could be felt in the epigastrium, which was dull on percussion. It was exquisitely tender, and the tenderness extended upward to the gallbladder and toward the right renal region. The temperature was not above 100° during the first 3 days. The pulse, at first extremely rapid, fell to 120, and remained at 112 to 116 until the fifth day. The swelling in the epigastrium steadily increased, extending toward the right and left flanks, more to the right than to the left. It was difficult to palpate, owing to the rigidity of the abdominal muscles. On the fifth day meterorism became extreme. The bowels, which had in the beginning of the attack been opened with difficulty, were paretic. The urine was scanty and high colored. It contained a trace of sugar. The vomiting became aggravated and exhausting, the pulse increased to 160, and the temperature rose to 104°, the symptoms of intestinal obstruction being most apparent. The vomit, at first a dark bile-colored fluid, became fecal in character. Operation, which in the beginning had been suggested but was declined by the patient, was now asked for; but it was clear that the time had passed when such a measure could be borne, and it was so explained. The patient failed rapidly, and died at the end of the sixth day.

The autopsy showed the abdominal cavity full of dark, bloody, purulent matter, which poured out of a rent in the peritoneal covering of the pancreas. The lesser omental cavity was filled with this pasty purulent material. There were areas of fat necrosis in the omentum. The pancreas was necrotic, and lay like a discrete, gangrenous mass across the posterior wall. It was so disorganized that microscopic examination showed nothing but the reticulum, with remnants of acini and degenerated and disintegrated clusters of fatty cells, where the islands of Langerhans should have been. The gallbladder had a few small stones in it, and some fine sand, but the common and hepatic ducts were free.

If a concretion had been in the ampulla, it had slipped into the duodenum and was lost. The choleduchus was edematous and thick, and the gallbladder showed similar edema of the mucosa. The duodenum was enormously distended and necrotic. There was a constriction of the gut at the ligament of Treitz. The stomach and pylorus were congested and the mucosa thickened, but there were no ulcers. There was beginning general peritonitis.

This patient had given no history of gallstones. He had never had jaundice. He gave an indefinite history of hematemesis. It was not clear, and the lungs being at the time free, it was thought it might have been from the stomach. This view was strengthened by a long history of indigestion and hyperchlorhydria. The diagnosis was never definitely determined, but it was thougnt a duodenal or gastric ulcer had perforated and discharged into the lesser sac, and that there was intestinal obstruction from the ensuing peritonitis. The pancreas was thought to be secondarily involved. At this day such an error would be impossible.

Chronic Pancreatitis. Pathology. Chronic pancreatitis was formerly considered a rare affection, but we now know it is more frequently met with than the acute variety. The pathology of the chronic form is intimately associated with obstruction of the choledochus and infective cholangitis. It may follow gastric or duodenal ulcer, or gastro-duodenal catarrh, or result from concretions in the ducts of Wirsung and Santorini. The infective material thus gains entrance to the pancreatic ducts, and causes an inflammation of the parenchyma as well as the stroma. Opie has classified the inflammatory changes into interlobular and interacinar.

Hyaline degeneration frequently occurs in the islands of Langerhans. It is associated with diabetes mellitus. Extreme cirrhosis may follow hypertrophic changes in the stroma of the gland. Opie has noted the frequency of the occurrence of chronic pancreatitis in alcoholics and its association with cirrhosis of the liver. Hausemann, Lefas, Dieckhoff, Friedreich and Oser have made similar observations.

Diagnosis. The symptoms of chronic pancreatitis are closely allied to those of obstruction in the choledochus and cancer of the head of the pancreas or of the liver. It cannot always be differentiated from obstruction in the choledochus, since the latter is very often present as a primary etiologic factor. Surgical treatment is indicated in each; it is therefore rarely of vital importance to differentiate the two conditions. Should hypertrophic changes exist, a tumor can sometimes be made out near the head of the pancreas.

Pain, rigors, cholemia, sweats, vomiting and fugitive temperature are features of each. The character of pain and the point of greatest tenderness will sometimes aid in declaring the condition of the pancreas. Central epigastric tenderness, with tumor, are characteristic in the latter. In cancer of the head of the pancreas the pain is not so paroxysmal, the onset is gradual, the cholemia is more intense and constant, and a marked tumor results from the obstruction of the choledochus and distension of the gallbladder.

In cancer of the liver, icterus is less pronounced, temperature and paroxysmal pains are absent, and there is an irregular and nodular feel to the edge of the liver. Acites may be present in either condition, but is more abundant in carcinoma of the liver. The lymphatic glands in the small omentum are enlarged, but are not easily palpable until the abdomen is opened. The presence of glycosuria and fat in the stools may aid in the diagnosis of chronic pancreatis.

Treatment. This consists, when possible, in clearing the common and pancreatic ducts of their obstructions. Should a stricture exist in the common duct, whether benign or malignant, either partial choledochectomy or cholecystenterostomy must be done to relieve the obstructed bile. Mayo has recently reported 3 partial choledochectomies. In one case the lower segment of the common duct was exsected and the proximal portion grafted into the duodenum.

In many cases gallstones will not be found in the ducts at operation, though evidences of their presence at an earlier date may be unquestioned. These patients are greatly benefited by a cholecystostomy, and this operation affords an opportunity to remove any concretions which may lie obscurely in the gallbladder. If this organ is contracted and thickened, as is frequently the case in obstruction of the chole-

dochus, it should be removed and a drain placed in the cystic duct. Mr. Robson urges the importance of cholecystostomy in chronic pancreatitis. This drainage should be maintained until the bile by repeated cultures is shown to be sterile.

Choledochotomy for stone, whether direct or into the ampulla via the duodenum, must always be associated with a positive mortality. The very nature of the involved pathology which terminates in the crisis demanding relief is formidable.

The prolonged cholemia, the lowered vascular tone evidenced in petechia, the reduced hemoglobin and extreme anemia leave the patient little resistance to withstand the shock of operation.

Most of these patients can be materially improved by careful preparation with salt solution, tonics, good food, hot Sprudel and, later, calcic chlorid, for a proper period before operating. At the time of operation every modern measure for conserving vital energy and combating shock should be employed. The patient should be kept dry and warm on the table by a hot water or electric pad. Infusion of salt solution should be early. All bleeding points should be ligated. Drainage should be carried to the choledochus, if sutured, or into it if left open. If the calculus is in the ampulla and cannot be dislodged, it must be reached through the duodenum and by incision of the papilla, after the technic of McBurney. All the speed consistent with safe work should be used, and no detail to provide against embarrassment or delay should be thought trivial.

The mortality in chronic pancreatitis need not be high if precautionary measures are adequately observed. It will be growingly lower as an intelligent knowledge of its complex pathology is acquired and enforced in early diagnosis and surgical remedy.

DISCUSSION.

Dr. H. C. Moffitt, San Francisco.—Although fully realizing the help surgeons have been in furthering our knowledge of pathological conditions about the gallbladder and of the therapy of such conditions, yet it is wise to emphasize the fact that all cases of gallstones do not necessarily call for operation. The general state of the patient, his ability to care for himself and follow rules of diet and methods of cure at home or in Carlsbad should weigh heavily in the decision. Stones in patients of the ages of 65 or 70 which give only occasional pain and mild attacks of cholecystitis certainly are better left alone.

Afterresults of surgical treatment do not seem to me as good as pictured in the average surgical report; medical men see unsuccessful results perhaps more than surgeons. I have 2 or 3 patients reporting now who have quite as much pain from their adhesions as they had from gallstones; it is true they have been freed from dangerous complications in the future, but their present existence has not been benefited. Not only should the surgeon weigh carefully the condition of his patient before operating, but it seems to me he should give more attention to the condition during operation. I have seen unwise attempts to do too much at one time in gallbladder cases as in other abdominal conditions. In one woman whom I have in mind, the surgeon insisted on taking out a normal appendix at the time of the gallstone operation, with the result of much added shock and an infection in the appendix region which lengthened convalescence by many weeks.

For my small series of cases it would seem much wiser to save the gallbladder, unless extensive disease contraindicates it. During the last weeks I have seen a young woman return with obstructive jaundice, due in all probability to a common duct stone which had worked down from the cystic duct after cholecystectomy a year ago for stones in the gallbladder. It would be a great comfort now to have the gallbladder available for drainage.

A great number of people who have stones latent in the gallbladder keep perfectly comfortable if they attend properly to diet, and occasionally take home treatment with Carlsbad water and salts, or an occasional course of treatment with olive oil or sodium salicylate and benzoate. I believe that Koenig and Kocher are still content to carry their gallstones with them, and it seems too radical to advocate operation in every case of cholelithiasis. One must consider the patient as well as the gallbladder, and avoid hard and fast convictions on either side.

A MORE SIMPLE TECHNIC IN HERNIOTOMY.*

By O. O. WITHERBEE, M. D., Los Angeles.

THE radical cure of inguinal hernia has been the subject of perhaps as many essays as that of any procedure in the entire category of surgery. The reason is not that success has failed to attend the efforts of the modern surgeon in his endeavor to effect a cure, nor is it the result of variable complications arising in individual cases. Why, then, this array of surgical technic to close what is but little more than a simple breach in the abdominal wall? Is it because the method of one man is superior to that of another? Such is not necessarily the case; good results obtain alike from the various operations that have stood the test sufficiently to enjoy a fair degree of popularity.

All are reasonably successful if done in a painstaking manner with aseptic precautions. Yet the average man doing a general line of work, though fairly familiar with the modern methods of surgery, will invariably give a guarded prognosis as to the immediate results of herniotomy. While this is true of the average man, there are many others who will not attempt the operation at all. Reason for this hesitancy may be explained from different standpoints; either the operator lacks familiarity with the anatomy of the parts, or else he is unable to satisfactorily carry out the technic as laid down by the masters of the art.

From the first charge he should at least, through common courtesy, be held exempt. The second, however, is a different matter. Valid excuses may be presented for failure to comply with the requirements necessary to make the classic operation a success. Unwholesome surroundings, the lack of trained assistants and the absence of suitable material throw a dismal light over the field of hernia operations, and under such circumstances only the presence of a dangerous condition would induce the man of limited experience to interfere.

But why is a breach in the abdominal wall at this locality more difficult to correct than elsewhere? A median line incision may be closed in most any haphazard way, and the patient is relatively sure to have a satisfactory result. Little, too, do we expect suppuration here, and the operation may be conducted without the most rigid aseptic precautions. This, however, does not hold true in the inguinal region. Either the process of absorption is materially retarded or else the natural resistance of the tissues to microbic invasion is for some reason lessened in these parts. Certain it is that foreign material is not handled so kindly as in other localties, to which the discouraging experience of many men will testify who give their statistics without reservation.

Again, it must not be forgotten that in the radical cure of inguinal hernia, we endeavor to close a natural breach whose boundaries do not and never have remained in opposition. It is virtually a plastic operation in which the flaps are not freed from their original positions, but are expected to unite while under tension and ofttimes in vigorous functional activity associated with abdominal movements.

In the average abdominal section, the stitches after the first few days are scarcely more than passive. Agglutination quickly takes place and firm union speedily follows. Such is not the case in the hernia operation. The tugging on the stitch here never ends

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until one of three things takes place: union is complete, the stitch is absorbed or sloughing has occurred. This being the case, one can readily realize the necessity of absolute cleanliness and the use of the best material.

It is well understood, however, that absolute cleanliness is an impossibility. With our present knowledge of aseptic and antiseptic precautions, no surgical operation can be performed without the entrance of micro-organisms into the wound. If from no other source, they are carried by the scalpel from the skin into the tissues beneath, while millions are scattered broadcast from the mouths and nostrils of all in attendance.

If this is true, we must rely, in a great measure at least, on the resistance of the tissues to the action of the infectious material introduced. The capability of the tissues to meet this requirement will depend very largely on their blood supply and the amount of abuse to which they are subjected. Enfeebled circulation or any unwarranted interference with the blood supply is a serious impediment to primary union, particularly in all regions where the tissue change is slow. That there is a difference in this regard between localities subject to surgical interference, we may, for example, consider the apparent immunity of the face and scalp to these retarding influences as compared with the inguinal region now under discussion.

Abuse of the tissues is certainly a factor of no small importance, and in that respect we should discourage all unnecessary dissection and manipulation. Bruising of the parts largely destroys or obliterates those channels through which absorption takes place, and while it thus retards the process of repair, it promotes suppuration by developing a condition favorable to microbic action. Should the tissues be additionally burdened by the presence of foreign substance of animal origin, thereby overtaxing the power of absorption, it is but reasonable to suppose that micro-organisms having once entered the wound, will meet with much less resistance than they would otherwise encounter. Wounds of the face and scalp may receive any amount of drubbing and have their surfaces smeared by discharges from the mouth, yet they are closed with whatever suture material is at hand, and the results are almost universally successful. Any practitioner of limited experience may do such work, and with the fullest assurance give a favorable prognosis. On the other hand, he would put a patient on the train and send him 50 or 100 miles to some specialist rather than cut down and liberate a strangulated hernia for fear that he could not properly close the wound and effect a cure.

I know men who would, without hesitation, perform appendectomy, yet would not attempt a radical operation for inguinal hernia so long as there were any possibility of controlling it by the use of a truss. This is an unfortunate state of affairs, and one that certainly merits an earnest endeavor to overcome the difficulty. What man of his own choosing would consent to wear an artificial apparatus to hold himself together for the remainder of life if he had the positive assurance that a 3 weeks' lay-off would rid him of the contrivance and put him on an equal footing physically with his fellow man?

Members of the medical profession are largely responsible for the prevailing opinion among the laity that a man's chances are far better while wearing a truss than they would be were he to undergo an operation. The same man would readily consent to take an anesthetic and have a bone set or wired if his physicians earnestly recommended it, yet he is persuaded to plod on through life with a hole in the bottom of his anatomy through which his vital organs are seeking to escape, and which may any day terminate his existence. Can we not devise a technic whereby the man of average surgical experience can perform herniotomy, and with reasonable assurance give a favorable prognosis?

Let it be borne in mind that I do not wish to criticise the classic operation for the correction of this deformity, nor do I presume to teach surgery to those who are thoroughly schooled in the art, but I do unreservedly take the stand that all men doing a general line of work should be able to perform certain surgical operations encountered in their own practice. Especially is this true when in remote localities emergencies arise which demand early decision and prompt action.

I am glad in watching the literature to note a swing of the pendulum toward simpler methods. There has long been a disposition on the part of leaders in the art to complicate technic in surgical work until the average man finds himself not alone inadequate from lack of experience, but embarrassed by the absence of suitable material, proper assistants and the necessary instruments to carry out the prescribed measures. My reason for preparing this paper is not so much with the object of presenting some new method as it is to explain the cause of hesitancy on the part of many men to embrace opportunities in their professional work. However, it is but natural that I should attempt some solution of the problem set forth, and in so doing, shall endeavor in a concise way to outline a simple procedure whereby many of the disadvantages already enumerated may be effectually and successfully avoided.

In considering what may be done, it is necessary first to review briefly those structures on which depends the integrity of the abdominal wall in the inguinal region.

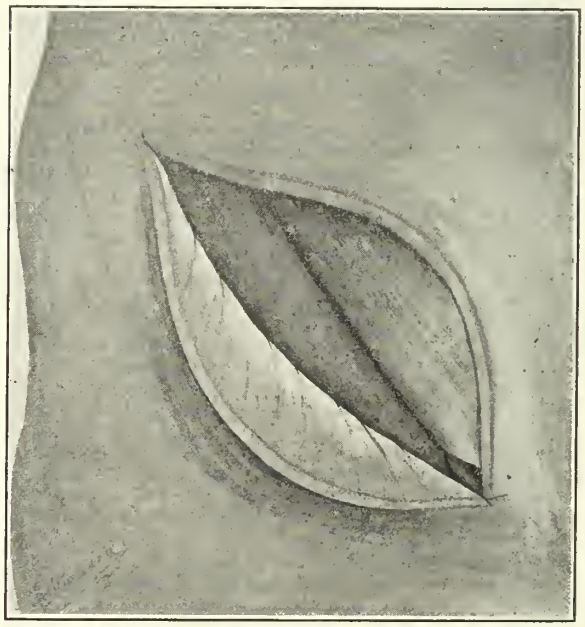

Fig. 1. Represents aponeurosis of external oblique which, in this location, is but a thin apron-like formation of fibrous tissue.

At the base of our field of operation we have Poupart's ligament, from near the middle of which arise the lowermost fibers of the internal oblique. These sweep upward and inward, arching across the cord just below the internal ring. From this point they are continued downward in a direction nearly parallel with a line midway between the outer border of the rectus and Poupart's ligament to a common insertion with the transversalis on the crest of the pubic bone. The space thus partially circumscribed by this section of an ellipse represents the natural breach in the abdominal wall.

The only structure left to resist the bulging forward of the peritoneum in this area is the transversalis

fascia, which, though re-enforced where it surrounds the cord, is but a frail barrier compared with the heavier muscles higher up.

The anterior wall of the so-called inguinal canal is represented by the attenuated fibers of the external oblique which in this locality is but a thin apron-like formation of fibrous tissue. Functionally it serves somewhat to check the hernia in its descent, but in nowise does this muscle operate to prevent its origin. This fact may be readily appreciated by passing the finger through the external ring in any given case.

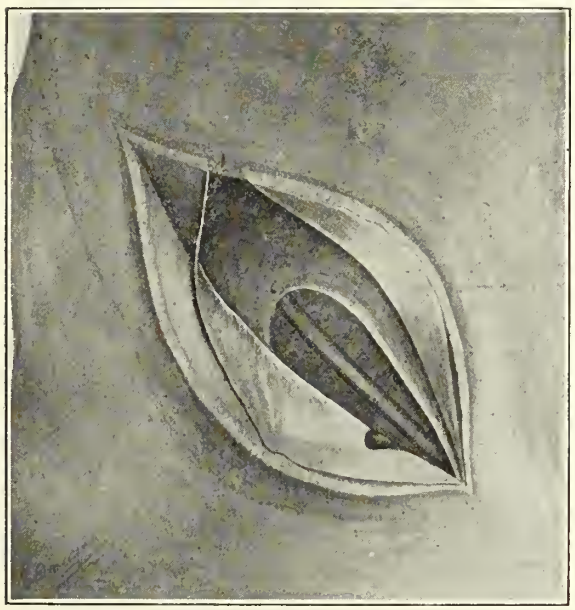

Fig. 2. Represents the breach in the internal oblique as found in the normal condition.

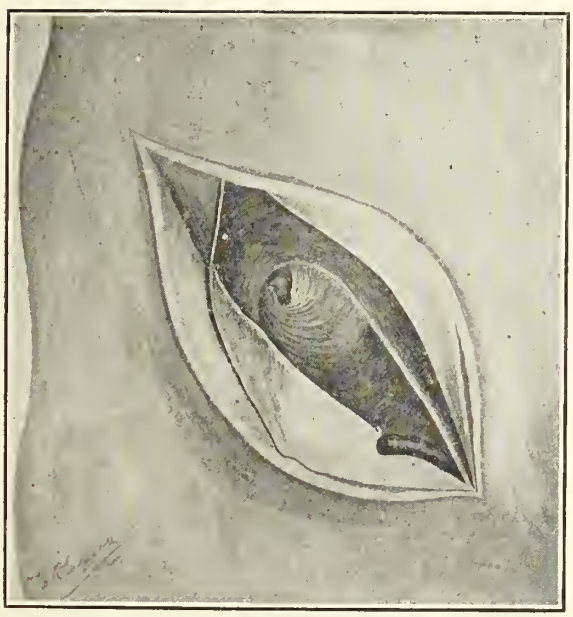

Fig. 3. Represents breach in internal oblique extending higher than usual, thereby exposing the opening in the transversalis fascia which favors production of hernia.

Much then depends on the integrity of the transversalis fascia, and should the internal ring open below the arched fibers of the internal oblique, or in other words communicate directly with this intermuscular space, we may expect a hernia to develop on the slightest provocation.

So long as the upper ring is securely covered by the internal muscle, the oblique, inguinal hernia is an impossibility. The direct variety due to rupture of the transversalis fascia may be sustained as a result of intra abdominal pressure, but even this is equally as impossible if the internal oblique can be firmly united with Poupart's ligament.

It matters not whether the cord be transplanted so long as the above named structures remain in apposition. Yet this same procedure is the great stumbling block at the present time, and the one which is indirectly responsible for so many failures to perform the operation and for the disastrous results in the hands of incompetent men.

Leave the cord alone and spare the tissues that unnecessary drubbing attending its manipulation. There can be no objection to preserving the natural relations of the parts, and there is certainly every reason for the preservation of the tissues. If interference with the cord is not necessary, then the operation is half done at the beginning. It is conceded that the majority of the recurrences take place at the internal ring, due in most cases to fatty or atrophic changes in the internal oblique. Yet in view of this fact, it is strongly urged that the cord should be brought through at this point, presuming thereby, it would appear, to provide greater resistance than could be afforded by firm union with unbroken continuity.

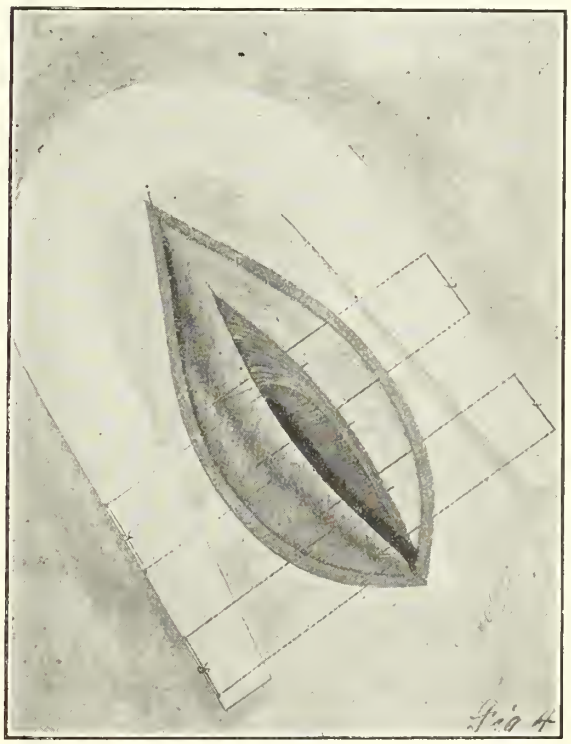

Fig. 4. Sutures in position which, when tightened, draw the internal borders of the external and internal oblique muscles firmly against Poupart's ligament. The sutures thus pass horizontally through adipose tissue and emerge from the skin at the outer borders of the plate.

It is also claimed by many that the presence of the cord back of the internal oblique is responsible for recurrences at the external ring. However, such recurrences are extremely rare, and granting their possibility, we must at the same time admit that they are much less likely to develop than would a hernia in a normal individual in whom the inguinal breach had never been repaired. I have never seen such a

recurrence, and I never expect to see one so long as the valve-like effect of the transversalis fascia is preserved by a suitable relation with the posterior surface of the internal oblique. It is also unfortunate that in transplanting the cord, it should be allowed to monopolize so large a surface of Poupart's ligament. The latter can be turned to a far better purpose by bringing in contact with it as large an area as possible of the internal oblique.

Poupart's ligament is a dense fibrous substance of a white glistening appearance, with a very sluggish circulation which greatly interferes in its union with other tissues. At best it is a frail structure considering the part it plays, and we should endeavor in all ways to effect the strongest union between it and the structures opposite. Due precaution should be taken that the sutures do not interrupt the blood supply, else sloughing will occur at the expense of approximation. To overcome this, I have used exclusively the figure-eight suture, which, if properly inserted, cannot be adjusted with sufficient tension to stop the circulation. It has the additional advantage of being removable, and consequently does not overburden the power of absorption.

To insure fixation and at the same time relieve the skin from undue pressure, a U-shaped plate is employed, to the arms of which are attached the sutures after they emerge from the skin. Four silk worm gut sutures thus introduced will effectually approximate both layers of Poupart's ligament with the external and internal oblique, the transversalis and rectus if necessary, and will maintain their approximation for an indefinite period, or until firm union has unquestionably taken place.

DISCUSSION.

Dr. Walter E. Bates of Davisville said that he, for one, as coming from the country districts where no hospital is readily at hand, was very much pleased with the technic as offered by the author. It struck him as being a very simple plan of procedure.

CASE OF ERYTHEMA MULTIFORMIS.*

By ALEXANDER GARCEAU, M. D., San Francisco.

In presenting this patient, A. M., age 27, to your clinical observation I wish to illustrate a case of erythema multiformis in a state of complete evolution. The interest in this case is not so much that it varies from other cases of its kind, except, perhaps, in presenting buccal lesions of the lips, of the eyelids and the classical lesions on the backs of the hands, in fact presenting *de omnibus*, a typical case; but there exists an etiological factor of some interest. He has suffered from a urethritis, not gonorrheal, since last November, and it was beginning with this source of irritation that he had his first attack and showed the first cutaneous manifestations. I did not see him until this, the third recurrence of the disease, a few days ago, when he was first referred to me by Dr. Geo. L. Eaton of this city.

This attack, like the previous ones, was ushered in by febrile symptoms which quickly subsided as the erythema made its appearance. The only inconvenience he has felt at any time is the burning sensation on the backs of the hands, which is imperceptible at the present time. You all know that the eruption which follows the febrile symptoms shows a marked exudation into the cutaneous tissue, and frequently includes the papular, anular and marginate forms of exudative erythema. This patient presents the papular and macular types, with the central deep violaceous target-like appearance which stamps it the unmistakable erythema iris. I have not the allotted time to give this subject all that is of interest of etiology and treatment that a proper paper would cover. The treatment is based largely on the etiological factors in individual cases. Kaposi claimed that we are unable to prevent the first eruption or subsequent relapses, or to accelerate the involution of the lesions, and that treatment is superfluous. Dr. Granville MacGowan, of Los Angeles, has recently given us, in an article in the "*Journal of Cutaneous Diseases*," February 1, 1905, a valuable experimental study of the use of epinephrin (adrenalin) solution internally in cases of erythema multiformis. He gives it in 10 minim doses every 2 hours for a few days, and illustrates its results by reporting several cases where it has shortened the course of the disease. Dr. MacGowan says in the therapy of epinephrin in these cases, it is sufficient to assume that the suprarenal capsules furnish to the blood an alkaloid, epinephrin, which by its presence prevents leakage of their contents from terminal blood vessels. I have not placed this patient on this treatment yet, but propose to do so as theoretically it appeals to me as the proper remedy in this class of cases.

*Presented to the San Francisco County Medical Society.

A CASE OF CEREBRAL ABSCESS OF OTITIC ORIGIN—OPERATION—APPARENT RECOVERY—RELAPSE—OPERATION—DEATH—AUTOPSY.*

By HILL HASTINGS, M. D., Los Angeles.

The complete history of the case is as follows:

Mrs. B., aged 35, sought treatment October 22, 1904, at the Ear Clinic of the Medical Department of the University of Southern California, and was in my care as assistant to Professor W. D. Babcock, in charge. She gave the following history: One week before, following a cold in the head, the right ear became stuffed up, accompanied by severe earache. For 3 or 4 days there had been a purulent discharge from the ear, and pain and tenderness in the mastoid, sufficient to prevent sleep. The general history was negative.

Examination showed a muco-purulent discharge (a smear from which contained diplococci); infiltration and sagging of the postero-superior canal wall, and an inflamed, bulging ear drum, with a small insufficient perforation. The mastoid showed a trace of edema in the post-auricular fold, and moderate tenderness on pressure over the antrum and tip. The temperature was 100°, and pulse 90. The drum membrane was incised; calomel and salts were given, and rest in bed, with irrigation of the ear every 2 hours, ordered.

By the following day the pain had eased up, the aural discharge was free, the temperature was 99°, pulse 64; but the mastoid tenderness had not changed. This condition remained the same for two days, when, on account of the increasing tenderness, a mastoid operation was advised.

Operation, October 26, 1904, at the County Hospital (with the permission and assistance of Dr. Babcock). The cortex was found hard and not perforated; the subcortical cells contained greenish yellow muco-pus (smear from the contents of 1 large tip cell showed streptococci); the antrum was full of muco-pus. The zygomatic cells contained inflammatory mucoid material; the dura over the antrum was exposed to a small extent on removing softened bone, and found normal. All the cellular structure was removed, including the tip, down to the hard bony wall covering the sinus, which was not exposed. The mastoid cavity was dried, packed with iodoform gauze, as usual, and the wound partially closed with silkworm gut. The temperature on the second day was 100.4°, and normal thereafter. By the twelfth day the patient was able to come to the office for dressings. On the twenty-first day the mastoid wound was sufficiently healed to discard the bandage and use a black patch, to retain the gauze dressing. The patient was then doing her household work. The ear discharge had ceased some time before. The perforation in the drum membrane had healed. The inflammation of the middle ear had subsided and the hearing about restored (watch 2 inches, whisper and speech normal at 20 feet). During the next 3 weeks the writer saw the patient every 3 or 4 days, to change the dressing behind the ear. The wound healed rapidly and cleanly. Her condition remained apparently normal up to December 7th, six weeks after operation, when she complained of a sick headache. No special significance was attached to this. The headache persisted, and as the pain was referred to the right frontal region, a nasal examination was made for possible suppuration in this sinus; but nothing was found. A change in the patient's disposition developed, but was only recalled after more positive signs of cerebral trouble showed up. That is, the patient became quiet, seemed rather depressed, and on leaving my office, after receiving a prescription for the "sick headache," acted as if something of a personal nature was causing uneasiness. This was remarked at the time, and was attributed to family troubles.

By reason of an illness, I did not see the patient for 3 or 4 days, during which time she was treated for the sick headache by a confrere, who reported on December 13th that she had suffered a good deal from frontal headache, and seemed to him to be growing dull. There had not been any elevation of the pulse and temperature, and, on the preceding night, there was noticed a sub-normal condition of both, with marked drowsiness; when aroused she would answer questions rationally, but would at once fall asleep.

When seen December 13th, the patient was in a semi-stupor; answered questions rationally and slowly when aroused, and at once relapsed into a stupor, from which she was aroused only by shaking her. While talking she would yawn listlessly; was weak and uncomplaining; said the headache had decreased, but still had pain in and over the eyes, worse on the right side; and no pain in the mastoid region. Her friends said she had vomited 3 or 4 times the past day or two, suddenly and without complaining of sickness; also had talked a little irrationally. A careful inquiry failed to elicit a history of similar attacks, or of hysteria, or of drug habits.

The examination notes made at the time are as follows: Temperature 98.6°, pulse 60. Mastoid wound practically healed; no tenderness on or over the mastoid; doubtful tenderness over the frontal sinus; no paralysis or disturbances of sensation or reflexes; no aphasia; tongue coated, and breath foul; urine passed voluntarily (examined later and found normal); left ear, normal; right ear, normal; pupils equal and respond to light normally; sight

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

apparently good, but ophthalmoscopic examination of the right eye (by Dr. Babcock) showed marked papillitis; the disk was swollen and fuzzy, veins tortuous, margin of disk obscured.

The next morning, after the patient was taken to the County Hospital, she seemed somewhat brighter, but was still drowsy, yawned often, answered questions rather mechanically, by yes or no, and asked no questions. Urine and stools passed normally, but only when awakened and told to do so. Temperature 98.2°, pulse ranging from 54 to 60.

After a consultation (Drs. Babcock and Barber), operation was deferred on account of the apparent improvement. Within 48 hours the stupor had gradually increased without any change in the general condition, and immediate operation was decided on. She could still be aroused to take nourishment, void urine, or answer questions. The necessity for an operation was explained, and acquiesced in by her rather mechanically, but without evident comprehension. Before operation a careful examination was made by Dr. H. G. Brainerd, for his class in nervous diseases. In addition to the signs and symptoms given above, he demonstrated a marked Babinski in each foot, but no paralysis, nor sensory or other disturbances. He concurred in the diagnosis of a brain abscess.

A blood examination (made by Dr. D. J. Frick) showed hemoglobin 90%; red cells, 5,300,000; white cells, 10,000.

Operation, December 16th, under ether anesthesia, assisted by Dr. W. D. Babcock and the hospital staff. The mastoid wound was opened and the firm scar tissue, with which it had filled, was removed down to the hard bony table covering the sinus, and to the inner table of the skull above the antrum. To further expose the middle cranial fossa, the skin incision was carried forward above the ear, the posterior fibers of the temporal muscle cut through and the ear laid well forward on the face. Around the small area of the dura, uncovered at the former operation over the antrum, the bony table of the middle fossa was removed to the extent of about 1 inch (2 cm.) in diameter. The dura appeared normal, except for the usual thickening where uncovered previously; there was no injection and no adhesions to the upper surface of the petrous bone; no pus or fistulous tracks on lifting the brain from the bone. The pulsation of the brain was normal. The temporo-sphenoidal lobe was then explored by a large aspirating needle. The needle was pushed directly upward and a little forward to the extent of about ¾ inch (1½ cm.) into the lobe above the antrum, when a feeling of entering a cavity was distinctly felt; a syringe full of greenish yellow odorless pus was drawn off (5 cc. by measurement). The needle was withdrawn, a dural flap made with a knife, and turned upward; and a long, narrow-bladed, sharp-pointed knife inserted through the apparently healthy brain tissue into the abscess cavity. By gentle lateral pressure with the flat of the knife, a little pus escaped. A Kelly's urethral endoscope (No. 18 French) was then inserted into the abscess cavity, which seemed to have a fairly firm capsule, and a little more pus and flakes were washed out by gentle irrigation with sterilized water. The cavity was dried and a wick of sterilized gauze inserted. The depth of the bottom of the cavity was over 1 inch (3 cm.). The mastoid wound was dressed with iodoform gauze and an outside dressing applied.

The operation required 45 minutes. The patient reacted well. A hot rectal enema, heat to the body and 15 drops of epinephrin by hypodermic injection were given largely as precautionary measures against collapse.

A smear of the pus, examined by Dr. Frick, showed diplococci, and a few streptococci in long chains. A culture of the pus made by Dr. Stanley Black, of the University of Southern California, showed pneumococci.

On December 17th, the day following the operation, a marked change was apparent in the patient's condition. She had had a good night, was perfectly conscious; had awakened, surprised at her surroundings, asked how she got to the hospital, where her child was, and said she wished some friends notified that she had become ill again. She had no clear recollection of coming to the hospital, did not remember our visits or consultation there, or the demonstration of Dr. Brainerd before his class. Her last recollection was of the examination made of her eyes at her home; and she had a hazy remembrance of being carried somewhere.

On December 18th, a rubber drainage tube was substituted for the gauze wick, for better drainage, as a few drops of pus came out on removing the gauze. Three or 4 days later a cigarette drain was used instead of the tube. No irrigation was used after 2 or 3 days.

On December 29th, Dr. Brainerd again went over the patient and found nothing abnormal, except that the Babinski signs were still present. The papillitis had somewhat subsided, but a fuzzy disk remained.

On January 3d the drain was entirely removed, as the abscess cavity had remained free of pus, and had almost closed up. A small wick of gauze was used to keep the dural opening from closing for a few days.

On January 12th the patient was allowed to sit up. Her general condition was normal, and the mastoid wound had remained clean, and filled in rapidly.

January 18th the patient was allowed to return to her home.

By January 26th, 6 weeks after evacuating the brain abscess, the mastoid wound had again about healed, having filled in gradually with firm scar tissue. The convalescence had been absolutely uneventful. She had remained free of pain, was doing light household duties, and was anxious to begin her work. A fuzzy disk persisted, although her sight was good. The recovery seemed at this time to be perfect. Two days later there was a sudden return of the sick headache and vomiting. The old pain, referred to the frontal region, had returned, and was increased on percussing over the right ear. The pulse was slow, 45 to 60; there was no drowsiness or other signs of cerebral involvement. She was at once removed to the hospital. Calomel, salts and an ice cap to the head gave no relief. Again, all other causes for the sick headache were excluded, as far as possible, by careful examination. After two days' observation reoperation was determined on, in view of the past history of the case, although stupor had not reappeared.

The mastoid cavity was cleaned out of scar tissue down to the dura above the antrum. The dura was bulging; pulsation was good; no pus was found between the dura and the temporal bone. An exploratory needle was pushed into the temporo-sphenoidal lobe in the same direction as before. Firm scar-like resistance, evidently that of a capsule, was met with at a depth of over 1 inch (3 cm.), the needle was then felt to enter a cavity, whereupon some thick pus escaped into the syringe. The cavity was opened with a long flat-bladed knife, and as before, fluid pus escaped; altogether a teaspoonful. The external opening was enlarged, the cavity gently irrigated, a cigarette drain inserted, and the wound loosely packed with iodoform gauze.

No improvement followed this operation. It was believed at the time that the abscess cavity was the same previously opened; that it had not completely cicatrized when the external opening was allowed to close, and that some partially attenuated micro-organisms had been left, which in the course of 5 or 6 weeks produced sufficient pus to cause pressure symptoms. There was scanty discharge from the cavity. At each dressing by the use of the endoscope the interior of the cavity was carefully inspected, but no fistulous tracts were found. The endoscopic picture of the cavity was that of a grayish membrane due to purulent secretion that bathed its walls. On wiping away this secretion a reddish membrane was seen, not unlike that of the urethra when chronically inflamed. The dull, frontal headache and slow pulse persisted, and drowsiness became more noticeable.

Another search (the third operation) under ether anesthesia, was again made 4 days later (February 4th). And this time the main abscess cavity was found and opened with the knife at the depth of about 2 inches (4½ cm.), over 2½ teaspoonfuls of greenish-yellow pus escaped rapidly, evidently from considerable pressure. A large external opening was made, sufficient to insert the little finger. The cavity seemed to be the size of an English walnut, and was well encapsulated. Some purulent detritus was washed out by gentle irrigation and gentle scraping with the finger. The larger size endoscope (No. 28 French) could be inserted to a depth of 3 inches (6 cm.) before reaching the inner wall of the cavity. A small cerebral hernia, the result of the previous operation, was trimmed off and the abscess cavity loosely packed with iodoform gauze.

For several days after this operation there was temporary improvement in the general condition; the headache decreased; she was less drowsy and perfectly rational. Several small pockets of pus were found and opened. The endoscope proved of great value in locating these side pockets, as well as in cleaning and packing the cavity. The discharge grew less, and the abscess cavity seemed to be cleaning up. However, the general condition again became worse; stupor, gradually increasing to coma, developed, and death resulted 3½ weeks later.

Autopsy findings. On removing the skull-cap there was found on the right side of the superior longitudinal fissure, on the upper surface of the frontal lobe, a large sub-dural collection of coffee-colored fluid, about 50 cc. (1½ oz.) in amount. This abscess or cyst was circumscribed, and corresponded to the surface of the superior frontal convolution. When its bleb-like covering was removed and the fluid drained off, the surface of the convolution to the extent of 6 cm. (about 3 inches) in diameter was seen to be covered by a fibrino-purulent, slightly hemorrhagic exudate. The underlying brain tissue was slightly lemon-colored on the surface, but not softened or apparently diseased.

The dura around the opening made in the temporal bone was tightly adherent. A hernia, about the size of a hickory nut, projected through this opening, and through this led the tract to the abscess cavity within. A hemorrhagic exudate in the pia mater, followed the course of the ascending frontal artery towards but not quite to the sub-dural cyst described above. Elsewhere the brain cortex was normal.

Horizontal sections through the right side of the cerebrum showed a normal condition, down to the depth of 5 cm., when a bright lemon tinge was noticed. A deeper section reached the abscess cavity. The abscess cavity was free of fluid pus. Its walls were covered with reddish brown granulations. Its size was that of a pigeon's egg, and occupied a large part of the posterior portion of the temporo-sphenoidal lobe. The abscess cavity extended to within ½ inch (1 cm.) of the posterior horn of the lateral ventricle. The intervening brain tissue appeared to be normal. Two small abscesses, the size of a pea, were found, in the anterior portion of the temporo-sphenoidal lobe, in front of and below the main cavity, with which there was no fistulous connection.

The ventricles, left hemisphere and cerebellum were normal. Death resulted, apparently, from the sub-dural collection of pus and extravasated blood on the upper surface of the brain. The infection, it is believed, spread to this point through the lymphatics along the course of the sulci.

Remarks. Politzer states (p. 594) that only one-fourth of the cases of brain abscess of otitic origin are due to acute otitis media; according to Jansen, one-sixth, and according to Grunert, only one-tenth. Bacon (p. 357) reported a case of temporo-sphenoidal abscess that followed acute otitis media of only 8 weeks' duration. Allen has recently reported (*American Medicine*, January 7, 1905) a case of cerebellar abscess, operated on at the Massachusetts Eye and Ear Infirmary, that also followed an acute suppurative otitis media. Jansen reported a case of cerebral abscess, found 5 weeks after the appearance of an acute suppurative otitis media, in which a fully developed abscess capsule was demonstrated, 10 days after the first symptoms of the formation of an abscess.

Köbel reported (see Politzer, p. 590) a case of acute purulent otitis with mastoid abscess, and with symptoms of cerebral abscess, in which autopsy showed empyema of both frontal sinuses, necrosis of the right frontal and an abscess in the adjacent lobe. These cases are cited to show that brain abscesses from acute suppurative otitis, while occurring less often than from a chronic otitis, are nevertheless not so rare; further, that the possibility of an abscess arising from a co-existent empyema of an accessory sinus of the nose should be borne in mind.

Diagnostic symptoms. Politzer states that "local symptoms in the cases of brain abscess do not often occur." The indications for operation in our case were *slow pulse, sub-normal temperature, vomiting, increasing stupor* and *choked disk*, following *aural suppuration.*

In the beginning, opium poisoning, uremic poisoning, hysterical disturbances and syphilis were excluded after careful examination and a few days' observation.

Optic neuritis is said to occur only in a small percentage of the cases, so that too much significance should not be attached to a failure to find this change on examining the eyes.

Seat of the abscess. "In 100 cases observed by Körner, the seat of the abscess was in the temporal lobe in 62%, in the cerebellum 31%, and both of these parts simultaneously in 6%" (Politzer). In our case the temporo-sphenoidal lobe was first explored, and, fortunately, the abscess quickly found. In the event of failure to find the abscess here it was the intention to open the cerebellum in the location advised by Politzer and Jansen, namely, behind the antrum, between the lateral sinus and the posterior semi-circular canal. This method of exploring the cerebellum is considered preferable to trephining 2 inches behind the external bony meatus, because the great majority of cerebellar abscesses, Politzer states, are situated in the anterior and medial parts of the cerebellum, and are more easily reached from the antrum, from which a fistulous tract may possibly be found leading inward and backward. In opening an abscess it is worth while calling attention to the failure at times noted by other observers, in using the syringe and the value of using a sharp knife. Kelly's urethral endoscope served very well in this case in lieu of Whiting's encephaloscope. Cicatrization of a brain abscess cavity takes place, according to Politzer, in from 3 to 6 weeks. After 3 weeks, in our case, the cavity was allowed to close, as there had been no pus from it in 2 weeks.

Results. Politzer states "that brain abscesses end, almost without exception, in death if an operation is not performed." He believes that the published cases of brain abscesses that are said to have discharged externally were extra dural abscesses. The same authority states "a fatal issue is caused by either meningitis, after rupture of the abscess on the surface of the brain, or by rupture and discharge of the abscess into the ventricles of the brain, or (less often) by encephalitis, or by complication of sinus thrombosis."

In our case, death was evidently due to the subdural abscess found at autopsy, which was quite distant from the primary abscess and on the upper surface of the brain.

DISCUSSION.

Cullen F. Welty, San Francisco. I sincerely compliment Dr. Hastings on his excellent report of the interesting case. The differential diagnosis of cerebral complications is considered the most difficult in the whole of surgery. At other times it is so easy that one with limited experience will not be able to make a mistake. Choked disc is present in 50% of cerebral complications; when present it assists you very much with your diagnosis.

The subjective and objective symptoms present in this case lead one to suspect cerebral abscess at once. One thing must be borne in mind—that when you have choked disc, the condition has existed some time prior to its manifestation. Providing a diagnosis has been established with the means at your disposal, and you can reasonably exclude meningitis, an immediate operation is indicated. By further delay you subject your patient to more serious complications that cannot be relieved by surgical interference. To my mind, several days elapsed in which there were clear indications for operation.

Another very important characteristic in this case is the persistence of the changes in the eye. This was a danger signal, and with the first appearance of any other symptom, or an exaggeration of the eye symptom, a second operation should have been done at once. From the literature at my disposal, I am led to believe that as the pressure symptom is relieved, the appearances in the eye disappear. I should be glad to hear from an eye man on this particular.

A very good point for the surgeon to bear in mind is that patients with meningitis die, while those having brain abscess have a good chance for life as long as there is breath. A basilar meningitis may produce choked disc; so may a sinus thrombosis; but you must in all reason look to your former field of operation or somewhere in the immediate proximity for the cause. When a surgeon diagnoses a brain abscess and demonstrates it by operation, he is well pleased with his work, and does not look for another. I remember seeing such a case; the second abscess was not diagnosed at all, and the patient died. I have seen 12 complicated cases with a mortality of about 50%. Lumbar puncture will materially aid in clearing up a diagnosis in difficult cases. When the fluid is turbid, meningitis is present, and it is said an operation is useless. I have seen one patient recover that had turbid fluid; I believe there are some 12 on record. It does not follow that you may not have a meningitis with a clear fluid; but you may have a clear indication for operation, and in some instances have brilliant results.

THE HOPES, DISAPPOINTMENTS AND SUCCESSES OF THE STATE BOARD OF HEALTH.*

By N. K. FOSTER, M. D., Sacramento, Secretary.

THE State Board of Health of California was organized in the early seventies, and was the third in the United States. Since then the basic idea of the necessity for such a board has materially changed in conformity with the progress of sanitary science. The idea at that time was that the board should be advisory, and it was given certain duties, but no powers.

It must communicate with local health boards, but it was optional with them to answer or not. It must "take cognizance of the interests of health and life among the citizens generally," but when it came to

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

enforcing proper measures to protect their life and health it was powerless to act. It must make sanitary investigation as to the causes of disease and epidemics, but having found a cause, it had no means of eradicating it. It must devise a scheme for collecting vital statistics, but the scheme had no power of law. It must diffuse information, but the means for so doing was not provided. It was evidently thought that a request or suggestion from such a board would be accepted and acted upon, and that the state would get a return for the $4,000.00 thus expended. How little they understood the disposition of people in regard to sanitary affairs is appreciated by anyone who has had occasion to try to institute any reform in these matters. This lack of authority to enforce needed regulations made the board not only advisory but practically useless, for public officials are only human, and it takes but a few rebuffs to cause them to settle back in the harness and not try to pull the load up impossible steeps. The want of efficacy in the past has been more the fault of the system than of the officials.

Recognizing the want of proper information, the prejudices and selfishness of humanity, and the necessity for someone with ample authority to act in the protection of life and health, those states recently organizing boards of health have vested them with, in some cases, almost autocratic power. The board is not only given permission to gather vital statistics and draw the necessary deductions therefrom, but it was made compulsory upon it to do so. It was made its duty to investigate causes of epidemics, and when found it had power to eradicate them. Water, ice and sewerage, all so intimately associated with public health, were placed under its supervision. Nuisances dangerous to health could be abated without the slow process at present in vogue here. It was made an active factor in the state, and has proven, in every instance, of immense advantage to the people.

When the California State Board of Health took office April 1, 1903, it was imbued with these recent ideas of the duties and requirements of such an office. Being all new members, we were not fully conversant with the total emptiness of the position. We had perhaps misjudged our predecessors, and thought that we would reform the office and accomplish much, and we sought a high place from which to view our field of labors. We saw a state 800 miles long by 200 miles wide, with high mountains, broad plains and low valleys. Industry was everywhere, immense orchards and vineyards produced all kinds of fruit. Vegetables, fresh from the field, could be had each day of the year. Flocks and herds grazed through foothills and mountains. Thousands of streams of sparkling water came down from the mountains for the thriving cities and towns which were everywhere growing up. A climate unsurpassed, where suffering from extremes of heat or cold was unknown, and where all natural conditions tended to robust health and long life. Surely this must be a healthful state. A more careful survey showed our mistake, and the bright view took a darkened hue, and instead of perfect health, we saw sickness and death everywhere throughout the state. We saw the sparkling water from the mountains carrying down the myriads of typhoid and other germs from campers and residents along the banks. We saw consumptives swarming to our state for its pure air and glorious climate, infecting our people because of their want of knowledge and the proper means of care. We saw the little ones of our state fed upon milk drawn from tuberculous cows, and filled with all kinds of filth from stable and milker. We saw children sick with infectious diseases attending school and taught by teachers in perhaps the same condition. Everywhere death and disease walked hand in hand, and laughed at the puny defense made against their inroads. We saw in some of the cities and towns earnest and effective sanitary work, but being surrounded by country with no organized health departments, they were being constantly invaded from without, and their efforts were in vain. We saw in our principal city a slight foothold of the dreaded plague, and as a consequence of a dispute regarding its diagnosis the state of California standing in the shadow of a quarantine by the eastern states, and the State Board of Health discredited.

We stood aghast at what we saw, and earnestly desiring to remedy the defects, sought our office to organize for the work. Alas, we found none. The great state of California had a Board of Health but no office room for it, not even a chair or desk. To the request to our predecessors for the property of the board we were given a few thousand copies of old reports, a few dozen reports from other states, and an unused ledger. By the kindness of a state official we were given permission to use one of his rooms, and, borrowing a desk and chairs, we began our work of trying to make the California State Board of Health a living factor in the growth and prosperity of the state.

A short review of the work of the board might be of interest. An examination of our laws showed us how faulty they were, but it must be 2 years at least before they could be amended, and meantime we must prove to the people not only the need of new legislation, but that it would be properly enforced if enacted. We naturally turned to the physicians for aid and advice, and although many looked with incredulity upon our ambitions and hopes, as a rule we received encouragement and help, and to their loyal support we owe and give our heartfelt thanks.

The danger of quarantine on account of plague was our first serious task. In January a conference had been held in Washington, at which resolutions had been offered which would have virtually quarantined the state, but action was deferred on it until June, thus giving the state an opportunity to demonstrate its willingness to cope with the situation. It devolved upon the state board to prevent this dire calamity, and we adjourned to meet next day in San Francisco, where a thorough organization was completed whereby the national, state and city health departments would continue harmonious work for one year, under a plan of operations which was carefully drawn up and signed. On June 3d, 2 of the members of the board visited Washington and frankly admitted to the "Plague Conference," which met on that date, that plague existed, told what we were doing to eradicate it, and asked their advice and aid, promising that every case should be reported in the monthly reports of the board. This gained for us their confidence, and the danger of quarantine was past; and at the conference one year after, they freely expressed their faith in our honesty and ability to handle the trouble, and now, after 14 months without a case, we feel confident that the disease is stamped out, and I am sure you will pardon us if we feel a little proud of our work.

Recognizing the want of organization and co-operation, we early conceived the idea of a state sanitary organization, where we could gather the health officers from all over the state and discuss questions of interest and arrange to work in harmony. This organization is now on a working basis, and has just held its fourth semi-annual meeting. To make it a thorough success, legislation is needed making it a duty of each sanitary officer to attend these meetings, the district he represents to pay needed expenses, and we hope that at the next session of the legislature such a law can be passed. It is as necessary to have trained health officers and organization to fight disease, which we always have with us, as a trained militia to fight a possible foreign foe. In no other way could municipalities and counties invest a small sum of money where it would yield such good returns. The board has taken an active interest in the health and sanitary conditions of the different parts of the state, and has always promptly answered calls for help by personal attention, and most of the counties

have been visited at the request of some officer or inhabitant. Causes of epidemics have been traced and aid given in removing them. All the state institutions have been visited, and better plumbing and disposition of sewage has been insisted upon, and in some cases secured.

The state law has for many years required the report of deaths, births and marriages to the county recorders, who quarterly must report them to the State Board of Health. We found in the attic of the capitol numerous rolls of these reports, a few recorders having carefully complied with the law. These reports we collected and preserved as carefully as possible, and notified all recorders of their duty, and that we expected of them the reports regularly. Many responded that they did not receive the reports from the physicians, but some have regularly sent them. These we have carefully indexed, so that in a moment's time any record can be found; and although the reports are imperfect, it is at least a beginning.

The work which has taken the most time and thought, and which we feel sure will be of lasting value to the state, is the series of laws drawn largely by the board and successfully conducted through the legislature. For drafting and conducting to a successful issue these laws we owe much to our attorney, Hon. W. I. Foley. A report on legislation will, I understand, be made to the society, but a brief review here will not be out of place. A complete system of registration of vital statistics is provided. The state is divided into registration districts as follows: Each city and incorporated town, and each county outside cities and towns is a primary district, with a registrar for each. In cities with freeholders' charters the health officer, in incorporated towns the clerk, and for the outside country the county recorder is the registrar. In case of death the undertaker is required to fill the certificate of death from information obtained from relatives or friends. He then takes it to the physician, who fills and signs his part, then to the registrar, who exchanges it for a permit for burial. Two copies of the certificate are made, one to be forwarded to the State Registrar of Vital Statistics, the other to be kept in the local office. Births are also to be reported to the health officer in cities with freeholders' charters, and county recorders elsewhere. Marriages are all reported to county recorders. Uniform blanks are to be supplied by the county supervisors from forms furnished by the State Registrar.

It is a misdemeanor to violate any sanitary rule of the State Board of Health made to prevent the pollution of ice or water intended for public consumption, or any rule or regulation respecting quarantine and disinfection. Power is given the board to prescribe and enforce regulations for the embalming, burial, cremation, disinterment or transportation of the dead. It is given power to abate public nuisances, and general power of examination, quarantine and disinfection. It may prepare or purchase antitoxin, vaccine and other improved lymphs. It is given sanitary control of all state buildings and the approvement of all plans for new buildings in so far as they affect the sanitary condition.

Another bill attempts to complete an organization reaching to every part of the state by using the present organization in cities and towns, and providing for a county health department for the territory outside. All contagious diseases to be reported to the health officer, and he to quarantine and disinfect, making monthly reports to the state office. To increase his enthusiasm for the work, his pay depends upon a notice from the state board that he had made the necessary reports. This will not insure perfect work, but will at least keep them in monthly correspondence with headquarters. Another bill creates a bacteriological laboratory at the State University at Berkeley, under the direction of the board. This is an important measure, and can and will be made of great advantage to the state. It is our intention to be prepared to examine pathological specimens for health officers, and in case of contagious diseases to give results by telegraph or telephone if so requested. Another bill was introduced, not by our request, placing upon us the enforcement of the pure food laws. This was defeated, probably because of the appropriation.

It will be seen that our laws are changed materially and much added labor put upon the board. To do this we are given a bacteriologist and statistician, not all the help we needed, but enough so that we can do some effective work. We recognize that our efforts have results in a far less degree of success than we had hoped to attain, but this will only spur us to greater efforts in the future. The laws recently passed will permit of better results, but much depends upon the physicians of the state. In the matter of vital statistics this is eminently true, and we urge upon the doctors of all schools and beliefs to do their full duty in reporting births and deaths. This will require a small sacrifice of time on their part, with no hope of fee or reward except the consciousness of a duty well done and the gratitude of the state. We know the laws are far from perfect, and 2 years' trial may bring out unforeseen flaws. If so, we can remedy them then. Our hopes are that by the end of the term of the present board we shall see every birth and death recorded as it occurs, a complete and systematized health department operating through every part of the state, infectious and contagious diseases so promptly and thoroughly dealt with that epidemics will be impossible, the health departments of state, county and municipalities recognized as the most important branch of government, and California taking the rank which belongs to her by her many natural advantages as the most healthful state in the union. This can be done only by hard, earnest, honest, unselfish work—work such as only physicians trained to self-sacrifice will do; but the goal is worth the effort.

SPASTIC PARAPLEGIA.*

By A. M. HENDERSON, M. D., Sacramento.

SPASTIC paraplegia, due to a derangement of the nervous system, is characterized by motor paresis of the lower extremities and increase of the tendon reflexes. These symptoms may be present in varying degrees of severity, and may be the only manifestation of the disease or may represent but a small part of the general disability. The anatomical lesion of spastic paralysis is not so easily localized as is demonstrated by the difficulties which Erb, Charcot and their followers have experienced in establishing the fact that such a disability may be dependent on a lesion of the spinal cord independent of the central nervous system.

Spastic paraplegia most frequently results from a cerebral lesion, which may be of intra-uterine origin, the result of arrested development, injury or disease of the mother, or may be caused at birth by the rupture of a blood vessel from prolonged labor, or by pressure of forceps, or may be acquired subsequent to birth, the result of injury, hemorrhage, embolism, thrombus or of any infectious disease. The cases of intra-uterine origin or those developed at birth are generally accompanied by severe mental impairment, frequently idiocy, and such of these infants as survive the first few years of life are quite likely to be of the most extreme type. The cases of acquired cerebral paralysis are less likely to be so severe in character. A large percentage of this class occurs during the first 3 years of life.

The etiology of the cases of spastic spinal paraplegia such as described by Erb and Charcot has not been definitely settled, but has been generally attributed to overwork, psychical shock, trauma, syphilis and heredity. The anatomical lesion has been well established to be a degeneration of the lateral tracts, most marked in and largely limited to the

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pyramidal tracts. Spastic spinal paraplegia may develop at any period of life.

Dr. W. G. Spiller of Philadelphia has made a most interesting report of the occurrence of 14 cases of spastic spinal paraplegia in one family. The motor paresis of the lower extremities is present in varying degrees of severity, but it is the increase of the tendon reflexes, the ankle clonus and patella reflexes that particularly characterizes the motion of one suffering from spastic paraplegia. Active motion is greatly interfered with by spasmodic contraction of the muscles. The effect of the reflex spasms may lead one to suppose that the paresis is greater than it really is. Walking is rendered difficult both by the paresis and the spastic rigidity of the legs. The contraction of the muscles of the calves causes plantar flexion of the feet and a tendency to walk on the toes, which is overcome only by the weight of the body; the feet "stick to the floor." The contraction of the adductor muscles causes the knees to hold together as a brace, or move one about the other in walking. In advanced cases an effort to move the legs may cause violent contractions of the muscles and extreme adduction of the legs. This adduction may be so extreme as to cause one leg to be thrown in front of the other in walking. The reflex muscular action opposes any effort to make passive motion of the legs, and separation of the legs is opposed by the action of the powerful adductors. The distortion caused by these spastic contractions tends to become fixed by the adaptive changes of the tissues. The muscles become rigid in the effort to overcome the spasms, the contraction of the muscles becomes permanent and the lengthening of the weaker opposing muscles increases. Atrophy of the muscles takes place from disuse rather than from degeneration of the nutritive centers. The bony tissues may also share in the deformities.

Medicine has accomplished practically nothing in the treatment of spastic paralysis, and when we consider the nervous lesions resulting in the paralysis we can hope for little from medical treatment. The great progress in abdominal surgery has so involved the attention of modern surgeons that the surgical treatment of the paralyses of children has not been given the consideration which the importance of the subject merits. The very character of the work, the length of time and the attention to detail required for the accomplishment of satisfactory results demands an amount of patience and perseverance possessed by few. It is not uncommon to see on the streets children with extreme deformity which could be greatly benefited by treatment, but which have quite likely received little encouragement from the physician. Most of the cases, with the exception of the idiot, the micricephalic and deplegic of extreme degree can be greatly improved by proper treatment.

Tenotomy lessens the frequency as well as the severity of the spasms of the muscles. Whitman argues that by elongation of the tendon the response to the exaggerated motor impulses is lessened and an opportunity for more effective control is afforded. Lorenz attributes the effect to shortening of the muscular portion of the tenotomized muscles so that their range of action is diminished. Tenotomy also makes it possible to overcome the deformity, and by relieving the tension on the opposing group of muscles gives them an opportunity to rest and recover power. Tenotomy should be performed even in the mild cases.

In performing tenotomy the question arises as to the selection of the open or the subcutaneous operation. The subcutaneous operation offers less exposure to infection, promises a more speedy recovery with less scar, and also avoids any concern for sutures. The open operation, although being more likely to infection, gives the operator opportunity to examine the tendon and to avoid injury to the nerves and vessels lying close to it. In the operation on such muscles as the adductors it is possible with the open operation to excise a portion of the muscle and to observe just what is necessary to be done. Some question has arisen as to the use of the blunt tenotome, the sharp-pointed tenotome having been used to make the skin incision, and to open the way along side of the tendon, the blunt tenotome to be used in making the section of the tendon, so insuring against making an unnecessary cut of the skin on the opposite side. The use of the blunt tenotome will require more time, and is hardly so brilliant as the use of the sharp tenotome alone, but it is safer, and it may be as well to use it in the cutting of the tendons, such as the outer ham-string, which lies in close proximity to the external peroneal nerve.

The patient having been prepared, the adductors are first taken care of. For this operation it is more desirable to have the patient lying on the back. It will be necessary to cut the adductor longus, adductor brevis and gracilis. It may be necessary to cut the adductor magnus and the pectineus if either interferes with the complete abduction of the femur. If the open operation is followed, it may be well to excise a portion (about three-fourths of an inch) of the muscle. Having completed the section of the adductors, it would be well to turn the patient onto the abdomen and take up the tendo-Achilles. This tendon should be cut about one inch above its insertion, as this is its narrowest point. In cutting the tendo-Achilles one must be mindful to cut all of the fibers of the tendon, as neglect to do so may result in failure of operation.

In cutting the tendons of the ham-string muscles the preferable sight of operation is on a level with the most prominent part of the condyles of the femur. The peroneal nerve lies just behind and along the inner border of the biceps, and care must be taken not to sever the nerve. The patient must be placed in a splint or plaster of Paris cast, so adjusted as to keep the extremities abducted and the legs extended, and the feet dorso-flexed. This position should be maintained forcibly for 3 months. On removing the splints from the extremities, the feet should be tied to the sides of the bed at night, so as to maintain abduction. After 3 to 6 months, effort to walk should be encouraged. Various exercises should be adopted to overcome any tendency to contraction. Massage of the muscles may assist in overcoming the atrophy, and passive motion should be carried out, paying especial attention to the abduction, extension and dorsal flexion of the feet. I shall report the following case:

Miss D. B., age 23. Family history: Parents living and well; two brothers died of diphtheria. All of the family well and strong mentally and physically.

Previous History: Patient was a full term child, membranes ruptured two weeks previous to birth; mother was in heavy labor 5 or 6 hours; no forceps; the child was thought to be dead, but was resuscitated after two hours. Weight 7 pounds. Baby grew well, and walked at the age of 12 or 13 months. Perfectly well until 3 years and 6 months old; at this time she was struck in the back by a moving railroad train; there were no marks on the body, excepting 3 bruises, each about the size of a quarter of a dollar, over the spinal column. The child was unconscious for 10 to 12 hours, and suffered a total paralysis of the lower extremities. For 4 or 5 months she had no control of the bowels or bladder; they then became normal. At no time were the upper extremities affected. At the age of 4 years and 6 months the patient again began to creep; 6 months later began to get on her feet. She walked with spastic gait, could not stand any length of time, as the limbs would swell. At the age of 9 years the patient entered school; finished the grammar school at 17 years of age.

Present Condition: Adduction of the thighs very limited, the legs can be extended only by using considerable force, ankle clonus and patella reflexes greatly exaggerated. The slightest irritation starts violent spasmodic contractions. Patient cannot straighten limbs in bed, and complains of a dragging pain in the abdomen. When sitting on a chair the legs frequently commence to move involuntarily, and can be stopped only by standing. Patient has typical spastic gait, knees hold together, feet "stick to the floor," walks on the ball of the foot, legs are flexed on the thighs, and the thighs are flexed on the body.

Patient advised to consult Drs. Huntington and Sherman of San Francisco. Multiple tenotomy advised; operation performed January 20, 1904. I severed the ad-

ductors, the inner and outer hamstrings, and the tendo-Achilles. Plaster of Paris cast was applied, placing legs in extreme adduction, extending legs, and holding feet in dorsal flexion. After 6 weeks plaster cast was removed, and 2 weeks later patient began to move about, using crutches.

Patient's height has been increased about 2 inches, muscular spasms have been greatly relieved, muscles of the legs have increased in development, and patient is able to walk very much better than previous to the operation. One year after first operation it became necessary to sever the biceps tendon of the right leg. The tendon of the semi-membranosis is now drawing slightly, and I expect it will be necessary to sever it again.

DISCUSSION.

Dr. Elbert Wing, Los Angeles. The society is under obligation to Dr. Henderson for an admirable paper, and for directing attention so forcibly to such an important class of cases. These cases are of especial interest, because the diagnosis is not always easily made, and they are of great importance because of the disastrous results of neglect and improper treatment.

The diagnosis in this case is perhaps not so difficult as the paper implies. All cases of spastic paralysis of the lower limbs belong in one of the following classes: 1. Cerebral di-hemi, or paraplegia. 2. Amyotrophic lateral sclerosis. 3. Hereditary spastic spinal paralysis. 4. Primary spastic spinal paralysis or primary lateral sclerosis. 5. Spastic spinal paralysis secondary to myelitis.

After a prolonged labor, in which instruments were not used, Dr. Henderson's patient was born cyanosed, and resuscitated with difficulty, but had no convulsions or paralysis, and was a normal child until injured when 3 years old. When 3 years old she was struck by the step of a moving car, became at once unconscious, and remained so about 10 or 12 hours. Motor paralysis of the lower limbs alone—the face and upper limbs were unaffected—and paralysis of the sphincters of the bladder and bowel followed. Subsequently voluntary control of the bladder and bowel was regained. In 6 months the patient could sit upon a chair, and in a year could get upon her feet. Following this period the spastic condition in the lower limbs gradually increased until she was so very greatly benefited by Dr. Henderson's operation and subsequent treatment.

Cases of cerebral palsies occur within the first 5 years of life, and almost without exception are accompanied by convulsions, defective mental development and epilepsy. In this case there were protracted labor and cyanosis, most common associations of Little's disease, but the usual subsequent conditions were lacking.

Amyotrophic lateral sclerosis is a disease of adult life, and one in which spastic conditions, motor weakness and muscular atrophy develop slowly, and usually together. Hereditary spastic spinal paralysis develops very slowly at or after the fifth year of life, the spastic conditions precede the motor weakness and greatly predominate, and runs in families. Primary spastic spinal paralysis is a disease of adult life, develops very slowly, and the spastic conditions greatly predominate over the motor weakness. If muscular atrophy is present at all, it is merely that of disuse.

This analysis assigns Dr. Henderson's case to the fifth category. It was clearly secondary to a transverse dorsal myelitis. The unconsciousness at the time of the accident suggests the possibility of associated cerebral hemorrhage, but the fact that the motor paralysis did not involve speech or upper extremities, rules that out, and the subsequent history of the case is typical of spinal and not cerebral paralysis.

In any case of transverse myelitis above the lumbar enlargement, with recovery, varying degrees of loss of voluntary motor power, myotatic irritability or spastic conditions and muscular atrophy will result. This is because many of the cells and fibers in the cord which at first lose their power to act, subsequently regain it. If destruction of the cells of the anterior horns predominates, atrophy, with motor weakness, will predominate. If destruction of the fibers of the crossed pyramidal tract is relatively greatest, spastic conditions will predominate Normal muscular tone depends upon muscle impulses which descend from the brain by way of the pyramidal tract. Increased myotatic irritability is due to (1) loss of the regular descending muscle (inhibitory) impulses, or to (2) irritation of pyramidal fibers, or to both.

Treatment. Years ago Gowers suggested that improvement in cases of cerebral spastic paraplegia of childhood occurs: (1) Not through recovery of damaged structures, but to (2) functional reëducation of parts supplied by nerve cells or fibers only partly damaged, and (3) compensation of parts whose nerve supply has not suffered any permanent injury.

A very short time after the subsidence of the myelitis in such cases as this one under discussion, only general and tonic effects can be secured by the administration of drugs, and the only results in the way of substantial and permanent improvement possible are secured by functional rest of the over-acting muscles, the flexor groups, and later reëducation of those functionally incapacitated through stretching, the extensor groups. In these cases the action of the flexors upon the extensors is analogous to that of weights used for counter-extension in cases of fractures, viz.: a relaxation which amounts almost to functional paralysis. It is exactly such results as this which Dr. Henderson sought and secured by the methods described in his paper. The paper is of somewhat unusual value because it directs attention to a class of cases often neglected because of incomplete diagnosis and a mistaken idea that they are practically hopeless, and because it illustrates how much may be done for them, and how to do it.

FIBRO-MYOMA OF THE UTERUS, FIBRO-MYOMA OF THE BLADDER WITH CALCIFICATION AND OSSIFICATION. PREGNANCY, MISCARRIAGE, SEPSIS, OPERATION FOR RELIEF; SECOND OPERATION AFTER TWO YEARS; RECOVERY.

By W. S. THORNE, M. D., San Francisco.

Mrs. S. Age 32, music teacher, married, and was first seen in consultation. The patient was a healthy and well nourished woman, who gave a history of regular but profuse menstruation for a year or more. She had missed one period, and she believed herself pregnant. The uterus was the seat of a fibroid growth, very hard and of moderate size, still fairly movable. Beneath the pubic arch and apparently attached to the bladder wall was a dense tumor, oblong in shape, and closely adherent. The broad ligament on the right side was much shortened by the extension between its folds of a dense fibroid growth. Pregnancy, therefore, was deemed undesirable, and I advised the medical attendant to evacuate the uterus by forced dilatation and curettement. Three months after my first visit I was again called, to find the following history:

Electricity had been applied as a substitute for curetting, without avail, for several weeks, and the patient was then dismissed with the assurance that pregnancy did not exist. She subsequently fell into the hands of an irregular practitioner, who gave her massage and electricity. The final result was a miscarriage at 5 months. Four days subsequently the patient had a severe chill, followed by profuse perspiration and great depression. I found the patient the fifth day after the miscarriage profoundly septic. The daily rise of temperature, 106.4°; the pulse small, rapid and irregular; the chills, in which she became cyanotic, lasting from 30 to 50 minutes. I removed by curettement some decomposing fragments of placenta, and thoroughly cleansed the uterine cavity. The treatment thereafter consisted of normal salt transfusions every 6 hours, strychnia, iron, quinine and caffeine, and later the antistreptoccus serum, with marked relief as to temperature, respiration and abatement of the chills for several days, when the temperature again rose to 106°, with alarming concomitant symptoms. I then removed her to the Waldeck Hospital, determined to open the abdomen and do a hysterectomy, if practicable, even at so apparently hopeless a time. The operation undertaken at this critical juncture revealed a dense irregular fibro-myoma of the uterine body, and a number of small sub-peritoneal growths, one of which was attached to the uterus by a slender pedicle, was necrotic, and was re-

moved. An oblong tumor of stony hardness was found attached to the pubic arch and forming a part of the bladder wall. A few ounces of a turbid fluid was found in the peritoneal cavity. The condition of the patient was clearly too critical to admit of the prolonged manipulation necessary to remove the uterus, and feeling that I had accomplished some advantage by the removal of a necrotic growth, I washed out the cavity with hot normal salt solution and closed the abdomen.

Convalescence from this time was slow, but uneventful, and she was able to return to her home a month after the operation. A year from this time the patient's general health was perfect, her weight having increased 20 pounds, but she complained of increasing weight and pain over the left side after unusual exercise and at the menstrual periods, which were normal save as to frequency. The uterus was slowly enlarging, and at the end of the second year I sent her to the hospital and removed the uterus and the bladder tumor. This hard growth was firmly attached beneath the pubic arch and formed a part of the anterior bladder wall. Its removal involved an opening in the bladder of 2 or 3 inches. The patient made a rapid recovery, and left the hospital 3 weeks from the date of the operation. She has gained much in weight, is in perfect health, and is actively engaged in her professional work at this time.

The following is the report of an examination of the bladder tumor by Professor Ophüls of the Lane Hospital:

Calcified muscular tumor size of large hen's egg, situated between bladder and symphysis firmly attached to wall of bladder. The tumor consists of some involuntary muscle, but mostly of dense fibrous tissue. Large areas of the tumor are necrotic, and show irregular calcification. In one place one of the calcified areas has been transformed into bone tissue. One finds typical spiculæ of bone with star-shaped bone cells; between them there is tissue of the construction of fatty bone-marrow.

Diagnosis: Fibro-myoma with calcification and ossification.

As the entoderm and mesoderm enter into the formation of the bladder, nearly all varieties of tumors have been found taking origin from its walls. The benign mature connective tissue tumors, fibromata, myomata and lipomata are very rare, and the different observers tell us that but few well-marked specimens have been recorded. I have thus far failed to find any record of a bladder tumor similar to the one here presented. In an interview recently had with Dr. Howard Kelly of the Johns Hopkins University, he informed me that he had never seen a tumor of the kind, and he was not aware of such in the literature of bladder tumors.

ADENOIDS FROM THE STANDPOINT OF THE PARENT AND THE GENERAL PRACTITIONER.*

By ROBERT L. DOIG, M. D., San Diego.

WHEN our friend Wycherly makes Sir Simon say, "Let me tell you, madam, familiarity breeds contempt," he voiced a human experience that makes his phrase immortal.

When we drop the more restricted sense of contempt and substitute the synonyms, slight, neglect, disregard, it covers our experience in every phase of life. Those of us who have lived 10 years in California scarcely see the orange blossoms unless we have a visitor from less favored climes; we seldom think of the beauties of the flora, of the sea or of our semi-tropical flowers and fruits—they are all "a matter of course." Familiarity leads us to treat with neglect, disregard, the beauties and joys of life and also the ills that have become "an old story." Familiarity breeds neglect, disregard in things medical as well.

We, the physicians, expect the American people to have catarrhal affections; and we, the fathers and mothers, say, "I have always had catarrh, and I suppose the children will also." Professor Quinlan says: "Nasal obstruction, however produced, is of such unusual occurrence and so serious in its consequences that it merits careful consideration." Nothing could be more true than the last phrase, nor more misleading than the first. If not, why does the so-called "nasal voice" or "twang" make us the laughing stock of the nations?

I once had the pleasure of spending two days and a night in a jury room because one of my fellow jurors could not believe that a man could be insane who showed intelligence on any subject. If every case of adenoids developed in a week and caused absolute nasal obstruction there would be no neglected cases. If every man who takes a drink were a drunkard, there would be no saloons. It is the evil of slow, insidious growth that becomes "an old story."

Let us paraphrase Dr. Quinlan's statement: Nasal obstruction, either complete or partial, is so common and so serious in its consequences that it merits careful consideration. Broadly speaking, hypertrophied pharnygeal tonsil is both the father and the mother of nasal obstruction.

Dr. E. A. Dial, in a very excellent paper read before the Santa Barbara County Medical Society,[1] says: "The physician who limits his practice to the treatment of the diseases of any special organ, is prone to become too enthusiastic on the importance of the pathological conditions of the parts he sees, treats, hears and reads about. This is true of the specialist who regards a woman's generative organs the center of her solar system, or the defective eye the cause of all headaches, or the stricture of large caliber the focus of all nervous troubles in the male. Yet *no* man has ever *exaggerated* the important role that adenoids play in the causation of diseases."

Personally I am a general practitioner. I am not even in the habit of performing the operation for the removal of the hypertrophied pharyngeal tonsil, but as an anesthetist I have watched the work of several other men, and so have seen a considerable number of cases. As I note the development of these children afterward; see the brightening eye, the more erect carriage, the alertness and general look of well being that comes in the months that follow, to those who have been relieved of this trouble; and, on the other hand, the vacant face, the open mouth, the gradually protruding teeth, the contracted chest, the listlessness at play, the dullness in school of those who go unrelieved, I am convinced that Dr. Dial is right, "No man has ever exaggerated the important role that adenoids play in the causation of diseases."

What, then, is this "bete noire"? An hypertrophy of normal tissues, in the pharyngeal vault, of whose etiology we are ignorant; whose existence and role and proper method of treatment was first demonstrated by Hans Wilhelm Meyer some 35 years ago. Unfortunately the hypertrophy in most cases gradually disappears after puberty. I say this is "unfortunate" advisedly, for it leads certain timid practitioners (or are they jealous of the specialist?) to advise against operation. When adenoids disappear at the approach of manhood or womanhood, the harm is done. Some of the dire results can be averted or removed by the skillful rhinologist and the patient orthodontologist, but nature's fair face has been so marred that never again can she be restored to her pristine beauty.

While the disease is local, the effects are both local and general. Contrary to the history of other diseased organs, the most direful results are not to the tissue directly involved but to the surrounding organs and to the well being and growth of the whole body. Just how early in life this hypertrophy may appear is an unsettled question, some authorities claiming to have removed adenoid growths from new-born babies, and others denying their existence before two years of age. Probably the development of permanent hypertrophy is slow in the beginning, and while the symptoms may not become marked before the child is two or three years of age, perhaps the adenoid is of almost equal age. Dench says "a cold in the head, in a child under 12 years of age, is almost invariably dependent upon adenoids within the pharyngeal vault."

It is not the purpose of this paper to go into etiology, pathology, etc., but to define the attitude of parents and general practitioners, and give some further reasons why both should be educated to the importance of the subject, and incidentally some hints as to the points that will appeal to them (especially the parents). The attitude of the parents is simply one of ignorance and a more or less stolid acceptance of the, to them, inevitable.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

[1] CALIFORNIA STATE JOURNAL, March, 1905, page 90.

The average physician is ignorant, indifferent or timid. To take the last first: Many are timid about performing an operation which they have never done, and perhaps, if graduated 25 years ago, they have seldom seen done. When they have taken post-graduate work it has been in other lines. While they have read of adenoids, their supreme importance to the sufferer is not appreciated. They know that some children, we might say the children in some families, are subject to colds in the head; that gradually they become mouth breathers; that some of them are slightly deaf, others have repeated and very painful "gatherings in the head" (which usually means pus in the middle ear, but may mean pus in the antrum of Highmore or the ethmoidal cells); that many of these children are dull in school, and gradually assume a half idiotic expression; that most of them have crooked teeth and many protruding teeth that the upper lip covers with difficulty or not at all. A little later, when they become ashamed of their condition, these young people use patent catarrh remedies or come to the family doctor, and he treats their catarrh with various douches and sprays and applications, but with indifferent success, because the nasal septum is crooked and the turbinates are not simply congested but changed in texture.

The family physician knows all this, but he does not appreciate that the removal of the adenoid growth in early life would have prevented these multiplying evils. Surely he does not, or he would fit himself to do the work or insist on its being done by someone else.

My dear doctor, were it not that I've been guilty of like offense, I should say that this young lady has a good case for damage against you. Look at her. (I have the very one in mind, or rather two or three.) She should have been beautiful. She has escaped some of the dangers to which you subjected her. Her ears were not affected, and she is not stupid. She is only flat-chested and delicate looking; her beautiful eyes save the face from being repulsive in spite of the hanging jaw, the pinched and undeveloped nose, the short and protuberant upper lip, the crooked and prominent teeth—crooked and protruding in spite of the many dollars paid to the best dentist available and the many days and hours of discomfort and pain that she has suffered at his hands.

And *you* were the family doctor. You often prescribed for her "slight colds," but, as you held her on your lap and talked to the mother, you did not tell that mother what these colds meant, nor to what they would lead. But perhaps it is not that you would hesitate to perform the operation should they come asking it, but you are afraid to seem to "drum up business." Possibly physicians are over-sensitive on this point. If this is your trouble, send them to someone else, but do *not* allow these children to be handicapped for life on account of your sensitiveness.

How should we appeal to the parents, before the trouble has existed so long as to leave indelible marks? Sometimes from the health point, sometimes from the point of looks. Unfortunately there is usually some neglected child of your mutual acquaintance to whom you can point as an example, and set them to watch the people with open mouth on the street. Occasionally the expense seems a bar. Why should so much be spent on a child, simply because it often has restless nights, sometimes sleeps with its mouth open, and is subject to colds in the head?

In talking a short time ago to a mother of very moderate means, and to whom thirty-five or fifty dollars looked a mint of money, I said, if on the one hand you could leave this boy five or ten thousand dollars, but as he is, and will be, physically, on the other hand, you can give him this operation and the development I can almost promise you he will have—but no money—I would choose for him the operation and the chance to make himself a man among men.

I have only hinted at the effect upon the lungs; on the oxidation processes, which are so essential to mental and physical development—on the ear (Dench says more than half of all cases). All these things you can find if I have awakened a spark of interest. As to one of my statements: "That hypertrophied pharyngeal tonsil is both the father and mother of nasal obstruction," I will have to admit that there are other children of other parents. We do have broken noses, and occasionally a child born with nasal deformity; but this is the dominant cause.

The best exposition of this that I have ever heard was not by a doctor, but by a dentist, in a paper read by Ray D. Robinson, D. D. S., of Los Angeles, before the Southern California Dental Society. The paper was illustrated by stereopticon views and casts of mouths, and the program committee of this association could not do a more kindly thing for the people of California than to ask Dr. Robinson to repeat this paper before this association.

The best text-book article with which I am familiar is in "An American Text-Book of Diseases of Children."

We might arrange the whole matter axiomatically. Every subject of adenoids is, more or less, a mouth breather. Mouth breathing forces up the center of the hard palate. An unnaturally high arched palate necessarily produces a deviated septum. A deviated septum aggravates and produces congestion and hypertrophy of the turbinated bodies.

DISCUSSION.

Dr. Fred Baker, San Diego. I am extremely sorry that Dr. Doig's excellent paper was not read before the Section of Pediatrics, as was originally planned. I can testify that the dentists are waking up to the enormity of the offense of leaving adenoid cases without operation, and to the long chain of evils which this entails, culminating, as far as their work is concerned, in the high-arched palate and hopelessly distorted incisor teeth. Dr. Robinson's finely illustrated paper before the Southern California Dental Association is bearing such good fruit that I sincerely wish he might be induced to repeat it before the Section of Pediatrics at some future meeting of the State Medical Society. This and a few such papers as Dr. Doig's might thoroughhly arouse our brothers, the general practitioners, to the disastrous results of neglected adenoids which are altogether too commonly in evidence, their responsibility for which Dr. Doig has drawn none too graphically.

Dr. M. W. Fredrick, San Francisco. Dr. Doig has given us in his paper an excellent resumé of the subject of adenoids, but it seems to me that he has not kept to his text. What we want to have is not a presentation of the clinical picture, but suggestions as to the best means of calling the attention of parents and general practitioners to this important and far-reaching condition. Thanks to the continued efforts of the aurists at state and other meetings, the family physician has become aware of this condition and its sequelæ to such an extent that most of them send the little patients to the aurist for his much-needed relief, instead of advising the parents, as was the former custom, to let the children "outgrow it." Nevertheless, there are many general practitioners who are indifferent to or ignorant of this condition, and it is therefore to be regretted that papers such as the one Dr. Doig has just read us, should not be read before the general body of this meeting, instead of before a small section of men who are already familiar with the subject. I hope that at future meetings papers of general interest will be read where they can reach the majority of those attending, and that papers of strictly special value be reserved for the sections.

Examinations in Texas.

The next regular meeting of the Board of Medical Examiners for the state of Texas will be held in San Antonio, Texas, on October 17th, 18th and 19th.

CASE OF ACUTE CHYLOUS MESENTERIC CYST.

By H. B. REYNOLDS, M. D., San Francisco.

Mr. H. P., 26 years old, good habits, carpenter by trade. Family history and previous history of no consequence. Four years ago was kicked by a horse with considerable force in the epigastrium.

Four weeks ago was seized at night with colicy pains in the abdomen, general in distribution but worse about the umbillicus. The next day he was able to return to his work, though the pain still was present. The third day the pain was worse and he remained at home for several days. Was badly constipated; loss of appetite and some nausea. On returning to work at the end of one week his pain became more severe than at any previous time. He consulted a physician and was again confined to his room. At this time was first discovered a small mass in the right side. The pain continued moderate for 3 weeks, sometimes better and sometimes worse, but in spite of it he was able to continue his work. Continued to be constipated, lost weight, had colicy pains and felt a dragging sense of weight as "though his stomach were dragging on his gullet." The mass had continued to grow steadily until the size of a baby's head and he presented himself to me in this condition.

Examination: Young man, poor in flesh of a somewhat sallow color. Mucous membranes pale. Tongue slightly coated. Heart and lungs negative. The abdomen was retracted except at the side of the tumor. The appendix region was slightly rigid and there was a distinct, though not excessive, tenderness at the classical appendix point. To the left of this spot and extending slightly to the left of the mid-line and upward to the level of the navel was a prominent tumor the size of a fetal head. It was slightly movable, both laterally and up and down. Was moderately sensitive to palpation and quite distinctly fluctuating though tense. Temperature 99.2°; pulse 80; leukocytes, 8,000. A diagnosis of appendicitis with abscess was made and operation advised and accepted.

When anesthetized for operation and the belly wall was relaxed, the mass was found to be much more freely movable in all directions but downward. This immediately suggested to us resemblance to a mesenteric cyst upon which we remarked. An incision through the right rectus after Kammerer's method was made and the appendix was found thickened, kinked sharply on itself and drawn up outside of the colon by a firm adhesion band. The organ was removed. The tumor was found to be a non-inflammatory tense cystic mass between the layers of the mesentery just below the transverse mesocolon. The enlarged arteries and veins of the mesentery coursed over its left surface on their way to the jejunium.

The right leaf of the mesentery was opened and the tumor successfully, though with difficulty, removed by dissection from the vessels. Uninterrupted recovery. For nearly 2 weeks there was an after-noon temperature of 99° to 100°. The presence of some glands at the base of the mesentery suggested a tubercular origin, but the tuberculin test was negative; and the temperature gradually subsided in 2 weeks.

The cyst was of moderately thin walls, about 1 to 2 mm., varying in different places. It contained about 20 ounces of fluid very closely suggestive of cod liver oil emulsion. On standing the fluid separated into a lower third of dark clear serum and an upper two-thirds of cream or fat emulsion identical with chyle. Unfortunately the cyst wall was not saved through an oversight, so no microscopical report can be given.

The history of the cyst with its contents strongly suggest its origin from the rupture of a chylous vessel into a previously existing congenital serous cyst.

A complete and most excellent article on the subject of Mesenteric Cysts with bibliography by Dr. C. N. Dowd of New York will be found in *Annals of Surgery*, October, 1900, p. 515.

CHRONIC SUPPURATION OF THE MIDDLE EAR IN RELATION TO THE WHOLE NUMBER OF EAR AFFECTIONS, WITH SPECIAL REFERENCE TO THE OPERATIVE CASES.*

By CULLEN F. WELTY, M. D., San Francisco.

CHRONIC suppuration of the middle ear is so important that I wish,

First, to establish the proportion that exists tween this affection and the whole number of ear affections.

Second, to establish by systematic diagnosis, following the latest and most approved methods, the proportion of operative cases that exist in the whole number of cases of chronic suppuration of the middle ear.

Third, to show you by statistics why some operators have a greater mortality than others.

Fourth, to demonstrate to you that nearly all these patients can be cured, and the hearing usually benefited.

Fifth, to demonstrate from material at my disposal that 10% or more of all victims of chronic suppuration of the middle ear die from cerebral complications if not operated upon.

NEW YORK EYE AND EAR INFIRMARY.

Total cases, 9,033; chronic suppuration, 1,823; operations, 159.

This shows every fifth case to be chronic suppuration of the middle ear. Every eleventh patient operated upon.

In the absence of a reply to my request for exact statistics of mortality, I estimate it on the basis of other large ear hospitals doing similar work to be 16. The reason of this is that the hospital is not large enough to accommodate all their surgical cases, and they have to confine themselves to those patients with threatening symptoms.

NEW YORK OPHTHALMIC AND AURAL INSTITUTE.

Total cases, 1,760; chronic suppuration, 312; operations, 26.

This shows every sixth case to be chronic suppuration of the middle ear. Every twelfth patient operated upon. Two deaths, or 1 in 13 operations, which is very good when we take into consideration the small proportion of operations in the whole number of cases.

UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

Total cases, 638; chronic suppuration, 90; operations, 11.

This shows every seventh case to be chronic suppuration of the middle ear. Every eighth patient operated upon. Two abscesses of the brain and two sinus thromboses, so every 2¾ patient had a serious complication. Reasoning from a statistical standpoint, at least 2 died. Again you see the serious complications are great in proportion to the number of operations. Had these patients been operated upon earlier, this would not have happened. Every fifth patient died.

EAR DEPARTMENT, UNIVERSITY OF HALLE, A. S.

Total cases, 3,335; chronic suppuration, 456; operations, 93.

This shows every seventh case to be chronic suppuration of the middle ear. Every fifth patient operated upon. Seven deaths, or every thirteenth patient. This is one of the most progressive ear hospitals that I have attended. From the number of cases at their disposal, I believe they do more work than any other with which I am familiar. Halle is the home of Schwartze, who was the first to operate for chronic suppuration of the middle ear, some 20 years ago. However, the operation has been considerably modified; at the same time the Halle Clinic has continued to be among the leaders in ear surgery. One would imagine in all these years that they would have made some impression on the whole number of cases, but it seems that the continual increase keeps the hospital of twenty-five beds filled. They have a population of 225,000 to draw ear patients from, and there are other clinics in Halle doing similar work.

UNIVERSITY OF VIENNA.

My statistics are not absolutely correct in regard to this clinic, but I am satisfied that they are so nearly correct that it will not make any difference in the relative proportions.

Total cases, 12,000; chronic suppuration, 2,000; operations, 300.

This shows every sixth case to be chronic suppuration of the middle ear. Every seventh patient op-

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

erated upon. Many serious complications and 30 deaths. The reason for this large proportion of serious complications and deaths is the fact that only the patients with threatening symptoms are subjected to operation, because the hospital is not large enough to accommodate the other class of patients. Some authors advocate this standard of indication for operation, while the most progressive men of the day establish different symptoms and indications for operation.

JANSEN'S CLINIC, BERLIN.

Total cases, private and clinical, 5,993; chronic suppurations, not specified; radical operations, 113.

From the fact that Docent Jansen does so much sinus work, it is hard to determine accurately the relative proportion of chronic suppuration to the whole number of ear affections, and the relative proportion between chrouic suppuration and operations. For this reason his report is not included in my statistics. No reference is made to the number of deaths, in his report.

MANHATTAN EYE AND EAR HOSPITAL.

(Report received too late to be included in statistics.)

Total cases, 4,850; chronic suppuration, 875; operations, 81.

Number of deaths not reported. You will notice from the figures that the relative proportion is not changed.

My own cases, private and clinical:

Total cases, 112; chronic suppuration, 34; operations, 9.

This shows every 3 1-3 case chronic suppuration of the middle ear. Every fourth patient operated upon. No serious complications and no deaths. Remaining for operation, 5 (in order of severity):

First—Destruction of attic wall, large masses of cholesteatoma. Hears acoumeter on contact; labyrinth intact.

Second—Caries discovered by use of the probe of the inner attic wall; occasional headache on this side.

Third—Cholesteatoma protruding from the attic.

Fourth—Caries and discharge of fifteen years' duration.

Fifth—Discharge from the ear for the last 6 years; has been under treatment 6 months. Refused to operate, 2; man 72 years old; chronic tuberculosis of the lung; much emaciated and weak; tubercular process of the ear; second, paralytic of many years' duration; will not live long.

Five patients refused operation (in order of severity):

First—Localized pain over one side of the head which had persisted for 3 weeks; meatus and attic full of cholesteatomatous masses; ear discharge for the past 20 years.

Second and third—Extensive destruction of the bony attic wall; masses of cholesteatoma; discharge for 4 years.

Fourth—Cholesteatoma of the attic; cannot demonstrate caries.

Fifth—Caries with discharge for the last 7 years.

None of these patients has a possible chance to recover. The nature of a cholesteatomatous growth is such that it increases in size continually. The only treatment that can be at all effective is to irrigate the attic and antrum with a mild antiseptic solution by the use of a canula in the hope of dislodging the mass piecemeal. Providing you have removed the entire mass, which is rather doubtful, you will have to repeat your procedure in a short time, and so continue for the balance of the life of the individual. Some few patients with caries may recover under careful treatment. The location of the denuded bone or fistula has a great deal of bearing on this. They should be watched and treated carefully for a definite length of time. All conditions being favorable, if they do not recover an operation should be advised.

Three of the patients would have died during the year had they not been operated upon (iu order of severity):

First—Dura exposed the size of a large thumb-nail, fistula of the horizontal semicircular canal, facial nerve uncovered for one-third of an inch, thereby giving access to cerebral complications by 3 distinct routes; dizziness so marked at times that the patient would fall on the street.

Second—Cholesteatoma the size of a large hazelnut, filling the mastoid cells, uncovering the sinus, granulation tissue on the siuus wall, Bezold's abscess of the neck.

Third—Pus retention, localized headache increasing in severity during the last two years.

Three would have died within the next few years (in order of severity):

First—The whole of the mastoid cells filled with a carious, necrotic mass; duration of the discharge, 15 years; patient 21 years old.

Second—Cholesteatoma the size of a hazelnut in the antrum; fistula of the attic wall; child, 4½ years old.

Third—The entire attic and antrum filled with granulation tissue; a polypus protruding from the external meatus. Continual pain on this side of head

Three may have continued to have discharge for the balance of their lives, providing the disease did not progress (in order of severity):

First—Tympanic membrane intact; fistula of the attic wall; at times this fistula was closed by granulations, producing severe localized headache. The suppuration has existed for 15 years.

Second—Granulation tissue the size of a pea in the tip of the pneumatic mastoid; duration of discharge, 5 years.

Third—Caries of the inner attic wall; duration of discharge, 10 years.

TABULATED CASES ACCORDING TO GROUPS.

	Case.	Age.	Cured.	Under Treatment.	Hearing.
1st	1	56	6 weeks	.....	Improved
	2	34	13 weeks	.....	Improved
	3	23	6 weeks	.....	Unimproved
2nd	4	22	9 weeks	.....	Unimproved
	5	4½	13 weeks	.....	Improved
	6	50	12 weeks	.....	Improved
3rd	7	25	9 weeks	.....	Improved
	8	12	.....	8 months	Made worse
	9	38	15 weeks	.....	Made worse

Percentage of cured patients, 90.

Average duration of treatment for cured patients, 10 weeks.

Improved hearing, 5, or 55%; unimproved 2, or 22½%; made worse, 2, or 22½%.

One patient has been under treatment for 8 months. A short time since I found a small fistula that was covered by epidermis; this was opened, and I believe the patient will soon be entirely cured. The hearing was made worse. The reason for this is that there was an unusual amount of cicatricial tissue binding down the stapes.

In case nine the hearing was made worse, and the patient was under treatment 15 weeks before he was cured. This was a very complicated case, because the brain was found to be so low, and the wall of the sinus so encroached upon the posterior osseous canal, that the radical operation was impossible. So I performed the Stacke operation, chiseling from within outwards. The cavity was very small, and there was danger of the existence of undiscovered carious bone. The wound was closed by the Körner flap. The attic and antrum completely filled with organized connective tissue, which was afterwards covered by epidermis. This tissue extended into the tympanic cavity, binding down the stapes very firmly, and obliterating the tube as well.

Dench reports in the February number of the *Archives of Otology*, 100 radical operations; 73 cured,

21 not cured, 4 result not known, 2 deaths. The only comment to be made on this is that the mortality is so extremely low that one is led to believe that these must have been selected cases. The mortality in hospitals such as the New York Eye and Ear Infirmary and the Ear Hospital at Vienna is about 10%.

I have 34 ears with chronic suppuration, and in that number I find 21 demanding operation. Of course this is out of proportion to any of the others I have mentioned. I account for it in the following way:

First—The number of cases is not sufficiently large to draw satisfactory conclusions.

Second—So little of this work has been done in San Francisco that the percentage of operative cases is very large.

Third—Five of the patients came to me prepared for operation, as they had been under treatment varying from months to years.

In making a general summary, we find:

Whole number of cases, 26,878; chronic suppuration, 4,715; operations, 598.

Every 5¾ case, chronic suppuration of the middle ear; every eighth patient operated upon; 57 deaths, or 1 for every 10½ patients operated upon.

The conclusions we must draw then are:

First—That every sixth case of ear disease is due to chronic suppuration of the middle ear.

Second—We find 4,715 cases of chronic suppuration, with 598 operations, or one in every eighth patient. The two large clinics that do not have sufficient room to accommodate all of their patients needing operation are included. If allowances are made for this condition, it will bring the proportion to something like every fourth or fifth patient.

Again, we must bear in mind that the work in America has not been carried on so energetically as in Europe; so in making my final conclusions I will say that perhaps every third or fourth patient can be considered an operative one.

Third—The reasons for the high rate of mortality I have spoken of before. It depends largely upon the class of patients operated upon.

Fourth—The table shows the relative proportion of cures, and the proportion in which the hearing was improved, unimproved or made worse.

Fifth—In my own series of cases, six patients would have died within the course of a few years. This is two-thirds of the whole number of operations. Estimating that the same relative proportion exists in the whole number of operations reported, it would mean that 400 of these patients would have died had they not been interfered with; in other words, 8.5% of the whole number of those with chronic suppuration of the middle ear.

We must make allowances for cases overlooked by the best; allowances for those that are not treated at all, and for those that are not correctly diagnosed. This in the aggregate will amount to between 12% and 15% of the whole number dying from cerebral complications. In establishing the percentage in my own series of cases, I find that it is 17½% of the whole number.

Case 1.—Female, age 56 years. When a child, had acute otitis on both sides, following scarlet fever. The ears continued to discharge until she was about 20 years of age. At this time she noticed that she did not hear perfectly, but she had no treatment. She has always been in good health until a year ago, when she consulted a physician about her nose. He removed polyps from both sides. Examining her ear later, he removed, as the patient described it, layer after layer of a whitish substance, from her ears. A few weeks after, the ears began to discharge, and have discharged up to the present time (November 11, 1904). She complains of dizziness for the past 2 months, to such a degree that sometimes she falls. She also complains of blurred vision at times, which soon passes off.

Weber, to the bad ear. Rinne, right ear positive. Bone and air conduction shortened. Rinne, left ear negative. Bone and ear conduction somewhat shortened. Schwabach, almost normal. Right ear, whisper 4 inches, acoumeter 4 inches. Left ear, does not hear whisper on contact. Acoumeter on contact only. Examination, right ear, drum membrane entirely destroyed. The entire attic wall destroyed by caries. A great deal of the posterior superior wall also destroyed by caries. The cholesteatoma protruding. On use of the sound the patient has pain referred to her tongue.

Left ear, drum membrane entirely destroyed; attic wall partially destroyed; cholesteatomatous masses in the attic. I cannot detect caries, but it is undoubtedly present. Middle meatus, both sides, full of polyps; an empyema of the ethmoid cells. November 14, 1904, radical operation. An extensive cholesteatoma filled the attic, the antrum and the mastoid cells. The whole of the posterior osseous and membranous canals were destroyed. The outer attic wall was destroyed. The dura was uncovered by caries the size of the thumb-nail. There was a fistula in the horizontal semicircular canal. The facial nerve was uncovered for about one-third of an inch. One day after the operation, the patient had a slight paresis. It passed away in the course of a few days.

January 10, 1905, hearing improved. Cured.

This is a very remarkable case, because of the three distinct routes by which brain complication might have been produced. I can say further that I have never seen a patient with a triple lesion recover, let alone be cured of the chronic discharge.

Case 2.—Male, age 34 years. June 21, 1904, had the ordinary diseases of childhood; denies venereal diseases; with the exception of influenza, which he had 3 years ago, he has been perfectly well; with his influenza came an acute suppuration of the middle ear. He was well of the influenza in 3 weeks. However, the discharge from the ear continued. He was treated for it for some time then, and has been treated for it at various intervals since, but it was not cured. He never had any symptoms traceable to mastoid disease. Three months ago, or in March, 1904, a swelling appeared in the side of the neck, which was opened and discharged a great deal of pus. The discharge was shortly reduced to a minimum. It was supposed to be a tubercular abscess, and the patient was advised to have it removed. He presented himself to the surgical department of the polyclinic with this history. It was noticed that he had some cotton in his ear, and he was asked what was wrong. He said he had had a discharge from the ear for a long time; he was referred to the ear department for an opinion. Upon cleansing the ear there was found a large perforation in the posterior superior quadrant of the membrana tympani; no granulation tissue nor polypi could be seen; by the use of the Siegle speculum pus was seen to come from the antrum, and it was fetid. Examination with the sound revealed denuded bone. On this, a diagnosis was made that an operation was indicated.

Weber, to the bad ear; Schwabach, lengthened; Rinne, right ear, positive; left ear, negative; right ear, whisper, on contact; left ear, whisper, 25 feet.

In regard to the swelling in the neck, it was probably associated with the mastoid known as Bezold's abscess. Operation performed in the usual way, closing with the Panse flap. The wound was left open. On opening the mastoid cells a large, infected cholesteatoma the size of a hickorynut presented; the bony sinus wall was completely destroyed and the sinus covered with granulations. A communication with the abscess in the neck was found, which proved to be a long pocket-like formation with an opening at its upper end. This part of the operation was done by Dr. Ryfkogel. He dissected out the infiltrated tissue and glands, curetted, and applied pure carbolic acid and alcohol and closed the wound. Healing, almost by primary union. The hammer and incus were not carious. The patient made an uninterrupted recovery in 13 weeks, which is a little better than the average for the open method of treatment. His hearing in the ear operated upon improved so that he could hear a whisper at 3 feet, which means good hearing for ordinary conversation. It will be seen from the pathological lesion found at operation that this patient would soon have had a serious cerebral complication.

Case 3.—Male, aged 23 years. July 2, 1904. When 6 years of age had scarlet fever. This was followed by acute otitis; the ears have discharged continually ever since. Otherwise he had had good health. Two years ago, had the ossicles removed from the right ear to cure this discharge. However, it was not successful. Added to the complication of chronic suppuration, he began to have periods when the ear would not discharge, accompanied by more or less headache on the same side. This has gradually increased in severity.

Weber, to the right ear. Schwabach, lengthened. Rinne, right ear, negative; bone conduction lengthened; air conduction shortened. Rinne, left ear, negative; bone conduction lengthened; air conduction shortened. Right ear, whisper on contact; watch on contact. Left ear, whisper on contact; watch on contact.

Right ear, entire destruction of drum membrane; part of the attic wall destroyed; cannot detect necrosed bone; pus very offensive, and coming from the antrum by the use of the Seigle speculum. Left ear, a large perforation in the posterior superior quadrant; part of the hammer destroyed; pus coming from the antrum. The right ear was operated upon by the Schwartze operation. A polyp was found which had acted like a valve, between the antrum and the attic. The attic and the mastoid cells were full of granulation tissue. Recovery in 6 weeks. Hearing unimproved.

Case 4.—Female, age 21 years. Had the ordinary diseases of childhood; acute otitis following scarlet fever at the age of 8 years. The discharge continued uninterruptedly for 2 years; adenoids were removed and some drops were used for the ear. The ear remained perfectly

dry for one year. Since that time it has discharged more or less.

Weber, to the good ear. Rinne, right ear, positive; slightly shortened bone conduction. Rinne, left ear, negative; considerably shortened bone conduction and very much shortened air conduction. Schwabach, somewhat shortened. Right ear, whisper 25 feet. Left ear, whisper on contact; acoumeter on contact. Caries of the attic wall with a fissure extending into the same. Some granulation tissue about it, which has a tendency to bleed on manipulation of the probe.

January 19, 1905, radical operation in the usual way, closing by the Körner flap. On removing the periosteum from the mastoid the bone showed a dark blue color; this was produced by the carious necrotic mass of the mastoid cells. The hammer and the incus were almost destroyed by caries. The wound has been dressed every second or third day. The patient complained so much of dizziness and headache, that she remained in the hospital 30 days. I attribute some of the headache, if not all, to a compound astigmatism, as it was relieved by the continuous use of her glasses. While in the recumbent position she was not dizzy. When she assumed an erect position she would become very dizzy, and at one time fell from her chair. I hardly know how to account for this dizziness; probably the stapes was partially or completely removed during the operation; it might be due to a fracture of the horizontal semicircular canal, or it might be from direct traumatism. Shortly after the operation she was reported by the nurse to be delirious; this happened two or three times. She is a highly sensitive, hysterical woman; I diagnosed the case as hysteria at the time. Her mental condition has improved gradually until the present time (March 1st) she is quite free from the aforesaid symptoms. She complained of headache, or soreness about the side of the head, but on percussion, no tenderness or soreness was elicited, nor did it aggravate the condition she complained of. When she began to walk, her gait was that of a person with a fractured pelvis. Eye background perfectly normal. Posterior wound healed by primary union March 27th, ear absolutely dry. Hearing unimproved.

Case 5.—Boy, 4½ years old. January 4, 1905. The father states that for the past 6 months the ear has discharged; does not remember that it ever discharged before. The discharge is very offensive. By examination, a polypus was found filling the entire meatus and protruding from it. This was cleansed and removed by a snare. However, I was not able to determine the origin of this polypus. A few days later the patient was anesthetized and the remainder of the polypus was curetted away and a more thorough examination made. I was able to demonstrate that the origin of the polypus was from a fistulous opening through the bony walls of the attic. There was considerable denuded bone that I could feel with the probe. On this I recommended operation. January 15th the operation was performed in the usual manner, closing with the Panse flap. On opening the attic a cholesteatoma the size of a hazelnut was found. The facial nerve was accidentally uncovered for a quarter of an inch; however, there was not the slightest suggestion of paresis or paralysis following this. The patient was up and about the ward in 6 days; on the seventh day he had a temperature of 104°; this diminished from day to day, lasting a week or 10 days. I can give no clear cause for this, with the exception that the parents gave the child sweets the day prior to his fever. March 10th, posterior wound entirely closed. April 10th, ear entirely dry; hearing very much improved.

In regard to the pathological lesion, I would say that the child evidently had had an acute otitis very early in life, which became chronic. There was such a slight discharge from this that it was not noticed by the parents until 6 months ago. Had this patient not been operated upon the ultimate result would have been death.

Case 6.—Female, age 50. January 1, 1905. Fifteen years ago had severe pain back of the ear, which lasted for several months. Has had more or less continuous pain ever since. Has been treated off and on for the last 14 years by a general practitioner. Complains of acute exacerbations of pain, limited to this side of the head. For 2 or 3 weeks has had headache and severe pains back of the ear. Chronic discharge from both ears.

Weber, in both ears. Schwabach, shortened. Rinne, right ear, negative; bone conduction shortened. Rinne, left ear, negative; bone conduction shortened, but not so much as in the right ear. Right ear, acoumeter, 3 inches; left ear, acoumeter, 1 foot. Have to speak in a very loud voice to make her hear at all. Right ear, drum membrane entirely destroyed; a mass of cholesteatoma protruding from the attic; a fissure in the anterior part of the attic wall. Left ear, a large polypus filling the entire meatus and protruding. The following day I removed the polypus; two days later the discharge was very offensive, and cholesteatomatous masses were protruding from the attic; the posterior superior wall was bulging. January 5th, radical operation; closed with the Panse flap; cholesteatoma found in the attic; the antrum was full of granulation tissue. March 29th, ear perfectly dry; hearing improved. The other ear remains to be operated upon.

Case 7.—Male, age 25 years. When 11 years old had acute otitis of both ears. The left ear discharged for about 2 months; the right ear has discharged ever since the attack; he says he does not hear at all or very little from this ear. Complains of frequent pain, deep seated in character. Three years ago had a particularly severe attack of pain, which was followed by a copious discharge, and the pain was relieved.

Weber, in the bad ear. Schwabach, lengthened. Rinne, right ear, negative; bone conduction lengthened. Rinne, left ear, positive; bone conduction normal. Right ear, acoumeter, 3 feet; whisper, 18 inches. Left ear, acoumeter, full distance; whisper 25 feet. The drum membrane of the affected ear was adherent to the inner wall. A fistulous opening in the walls of the attic; a fistulous opening into the antrum; granulations protruding from both. The discharge is always very offensive.

November 28, 1904, radical operation; closed by the Körner flap. The pathological conditions found at operation do not vary from those already described. This patient suffered from pus retention 3 years ago, according to symptoms given by the patient; such cases as these never get well of themselves, and are very likely to leave serious cerebral complications.

Case 8.—Boy, 10 years of age. August 16, 1904. Had scarlet fever when 3 years old, which was followed by acute otitis on both sides. He has had intermittent treatment extending over considerable length of time ever since. Otherwise he has had good health.

Weber, in both ears. Schwabach, probably slightly lengthened. Rinne, right ear, negative; whisper 10 feet. Rinne, left ear, negative; whisper 7 feet. Examination, right ear large perforation of the drum membrane in the anterior inferior quadrant. No denuded bone can be detected. By the use of the Siegle speculum pus comes from the eustachian tube. At a later examination the pus was seen to come from the attic. The discharge ceases for 2 or 3 days and then reappears. Left ear, the perforation of the drum membrane is in the posterior superior quadrant; considerable pus, not very offensive. By the use of the Siegle, pus comes from the antrum; denuded bone can be detected in this region; what could be seen of the attic wall was whitish in appearance.

August 18, 1904, operated in the usual way, closing by the Panse flap. The entire attic and antrum were covered with epidermis, which had grown from the external meatus replacing the mucous membrane, a pneumatic mastoid. In the bottom of this cavity were dark red granulations about the size of a large pea. This could not have resulted in a spontaneous cure, because the epithelium would have been cast off as soon as the granulations were reached, forming a cholesteatoma. He has been under treatment 8 months; about 4 weeks ago I discovered a small fistula that was covered by epidermis, which I think is the cause of the long delay in his recovery. I opened this fistula, and after a few days the ear was comparatively dry, with the exception of a slight oozing that takes place from a surface not covered by epithelium. I expect the ear to be perfectly dry in a week or two. The hearing in this case was made worse, due to an unusual amount of organized connective tissue over the stapes.

Case 9.—Male, aged 38 years. October 15, 1904. Nine years ago, had acute otitis, which continued to discharge for several months. It has discharged off and on during the entire 9 years. For the last 8 months he has had a continuous discharge, accompanied by more or less pain back of the ear. The discharge during this last period has been very offensive.

Weber, in both ears. Schwabach, lengthened. Rinne, right ear, positive. Rinne, left ear, positive. Right ear, whisper 25 feet. Left ear, whisper 12 feet. Examination, right ear, membrane intact; perfectly healthy. Left ear, a heart-shaped perforation of the whole of the inferior part of the membrane. By the use of the Seigle speculum, pus comes from the attic. By examination with the probe, caries is found in the inner attic wall.

November 10th, Stacke operation closed by the Körner flap. On taking away the first rim of bone, the dura was uncovered. This was because the brain encroached so much on the attic and antrum, leaving no room to proceed farther in this way. I then began the removal of the posterior osseous canal lower down, in hopes of entering this way; however, the second piece of bone I removed uncovered the sinus. There was only a small bony partition between the posterior membranous canal and the wall of the sinus, rendering it absolutely impossible to proceed with the radical operation. Therefore, the Stacke operation, which is especially adapted to such cases, was substituted, removing the outer wall of the attic and antrum from within outwards. The cavity presented the appearance of an inverted cone. On account of its diminutive size the after-treatment was not entirely satisfactory. The hearing was not improved because the antrum and attic and part of the tympanic cavity filled with organized connective tissue covered by epidermis. This tissue presses on the stapes so firmly as to impair his hearing. He hears a whisper 3 feet in the ear operated upon. Under treatment 15 weeks before the ear was absolutely dry.

DISCUSSION.

Dr. Barton J. Powell, Stockton. Dr. Welty has secured some valuable statistics, and they certainly compare most favorably with other authors of this country and Europe. The people are gradually being educated as to the seriousness of middle ear trouble. Every aurist has a number of suppurative otitis cases, which he feels need operation, and the patients in recent years are learning to demand a radical operation. It is to be hoped that Dr. Welty will continue to keep a careful record of these cases so that we can again have the pleasure of hearing from him on the subject.

DEMONSTRATION OF AN INTERDENTAL SPLINT FOR FRACTURES OF THE LOWER JAW.*

By RAYMOND RUSS, M. D., San Francisco.

THE necessity for a practical splint in lower jaw fractures, which would not interfere with the oral functions, and which at the same time would maintain reduction and immobilization of the fractured bone, has long been felt by all surgeons. The literature on the subject is voluminous, and a great many forms of apparatus have been suggested. Yet in spite of the attention which has been directed to this fracture in past years we find the surgeon today reverting to the most primitive methods in its treatment. Wiring of contiguous teeth, as advocated by Hippocrates, and the use of the chin splint, first recommended by Paré, are still largely practiced.

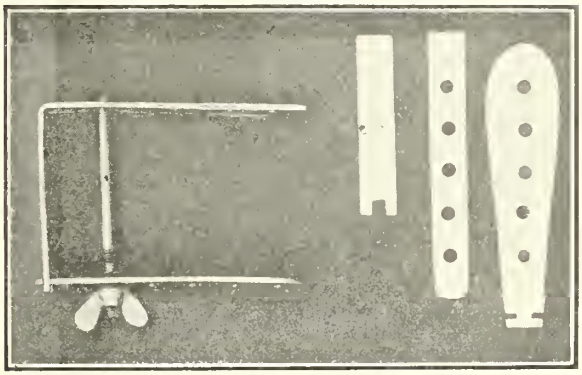
The wiring of teeth on opposite sides of the fracture is most unsatisfactory. The teeth soon loosen under the strain, allowing more or less play between the ends of the fractured bone. The chin splint, generally made of molded pasteboard, as first used by Huster, or of plaster-of-Paris, and held in place by a Barton bandage, is the dressing most generally employed at the present time. The inefficiency of such an apparatus is apparent. The fracture is properly reduced at the first visit, and a bandage applied tightly so as to keep the jaws firmly pressed together. The next day we find that the bandage has loosened to such an extent that the patient can articulate well, and has probably been able to open his mouth wide enough to feed himself with a spoon.

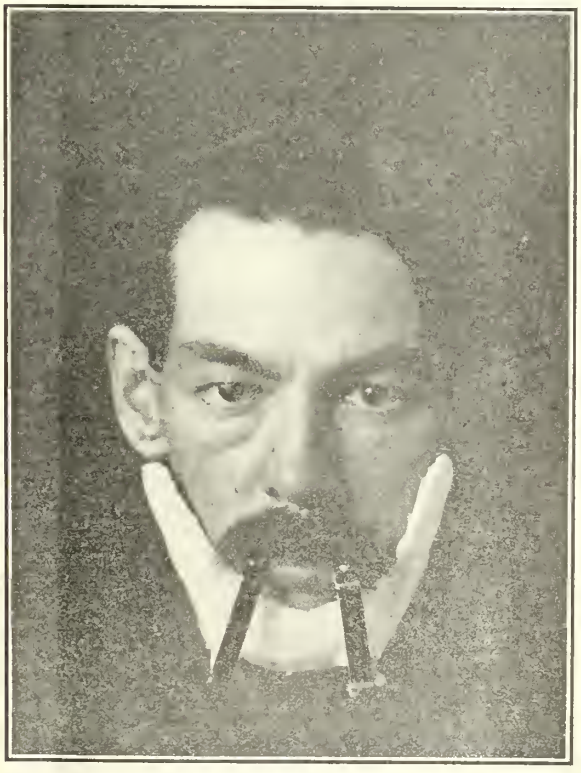
Fortunately the displacement in the majority of cases is not great, and the parts are held in fair apposition even by this faulty method. Marked deformity resulting from such treatment is, however, frequently seen. When the simple chin splint fails the surgeon generally adopts the doubtful procedure of wiring the ends of the fractured bone, rather than call upon a dentist to construct an interdental splint; the latter procedure is not always possible, nor is it sometimes advisable for the patient to go without proper treatment during the time required to make such an apparatus.

On examination of the different methods employed in the construction of interdental splints, we find that the most satisfactory results are obtained by those which combine both downward (interdental) with upward (chin) pressure. This mechanical principle is seen in the splints of Wales, Sudduth, Lonsdale, Bullock, Moriarty, Ackland and Matas. It is of the greatest importance that such a splint be as simple as possible. The era of cumbersome and elaborate forms of apparatus in the treatment of fractures, which reached its climax in the ridiculous appliances of Bardenheuer, has fortunately passed. There are few kinds of apparatus for fractures of the mandible that are practicable from a clinical standpoint. Many require a skilled dentist for their application, thus greatly limiting their field.

The points which I would emphasize, in regard to the splint to be presently described, are that it holds the fractured bone firmly and allows of free use of the lower jaw, thus preserving the oral functions. It does not so cover the teeth as to prevent free cleansing with antiseptic solutions. It can be easily made by any gunsmith or locksmith, and is thus accessible to every practitioner. It is comfortably worn by the patient, and, if properly adjusted, does not loosen easily. It can be readily applied to those recent cases in which it is impossible for the patient, without force, to open his jaws but a slight way, thus preventing the taking of impressions or the molding of a mouthpiece. It can be quickly removed, for purpose of inspection, and can be rapidly readjusted. Unfortunately, like other interdental splints, it cannot be used in all cases. Cases of fracture of the rami, or of the condyloid or coronoid processes, or severe comminuted fractures are outside its scope. Looking over my clinical records, however, I feel that I could have employed it successfully in about 90% of my cases.

This splint, illustrations of which are here shown, is made of spring brass of 3-64 of an inch in thickness. It consists essentially of two clamps, the chin pieces of which are incorporated into a plaster-of-Paris dressing. Each clamp is made of two parts, a chin piece and a piece bent at right angles, making a long and short arm. The chin piece is 8 cm. long, somewhat wider at one end so that it may not slip from the dressing, and provided with a number of holes, that the plaster-of-Paris may obtain a firmer hold. The right-angled piece is 1 cm. in width, and the arms measure 7½ cm. and 5 cm. The ends of the short arm and the chin piece form a simple lock.





These two parts when locked form a clamp, which permits of adjustment by means of a round head brass machine screw 6 cm. in length, and carrying a winged nut. This fits into holes in the long arm and chin piece at 1½ cm. distance from the short arm. After the clamps have been made they should be heavily nickel plated. The making and plating of the clamps will require one day. The clamp has been found to be applicable to 35 out of 50 adult jaws. For

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

the remaining cases a clamp with a short arm of 5½ cm. is required.

The splint is applied with the patient lying in the dorsal position upon the operating table. The face is cleanly shaven, any excoriations present are protected by zinc oxide ointment and gauze, and the fracture reduced. A thin layer of felt or several layers of sheet wadding are then neatly fitted over the jaw and under the chin, and a plaster-of-Paris bandage applied directly. The bandage is carefully folded, the operator rubbing the plaster well in as he proceeds. It should extend as far back on each side as the ramus, where the turns are held in close apposition by an assistant or by the patient himself. After sufficieut layers have been applied to well cover the jaw and make a firm foundation, the clamps are placed in position, the parts being held together by the screws and nuts.

The long arms are applied directly over the molar and bicuspid teeth, extending as far back as the last molars, and emerging at the corners of the mouth. The chiu pieces are pressed into the plaster. They should run along the body of the jaw. The apparatus being in position, a few more turns of the bandage are taken and the dressing completed by rubbing in dry plaster-of-Paris, care being taken that the chin pieces are well embedded in the plaster.

When the dressing has dried the clamps are unlocked and the cast removed and trimmed to the desired shape. The dressing is then reapplied to the jaw. The interdental portions of the splint, together with some dental compound, such as is ordinarily used by dentists in taking impressions, are thrown into hot water. When softened sufficiently, the dental compound is applied along the under surface of each interdental arm. These are then quickly placed upon the teeth, in the same positions which they occupied in the first application, and pressed down firmly, so that they rest upon an even bed, the dental compound filling up the holes which have been previously bored into the long arms. The parts are then locked together, the screws applied and the apparatus tightened by means of the winged nuts.

The application of the apparatus is not difficult. The splint furnishes a quick and ready method of treatment, and thus far has given excellent results. If properly made, uniform pressure will be exerted by the plaster-of-Paris cap, and no excoriations of the skin will result. By means of the action of the two parallel lines of force, each clamp holds its half of the mandible as in a vise, while spreading is prevented by the closely fitting plaster-of-Paris dressing. Firm pressure on the molar teeth, so necessary in the treatment and in the reteution of the apparatus, is exerted.

I applied the splint to one patient in whom the contour of the lower teeth was extremely irregular. In such cases the apparatus, after a day or two, may loosen sufficieutly to allow the long arms to slip from their positions. I find this difficulty can be overcome by leaving a number of tabs upon the long arms when they are cut from the brass sheeting. These can be turned down at right angles, and will thus make the position of the long arms perfectly secure.

In one case I had to deal with a large open fracture in which great mobility was present. This was situated just in front of the right second molar. This molar and three incisors were the only teeth present upon the lower jaw. In this case but one clamp was used, the chin piece of which was embedded in the plaster. A hole was made in the long arm, and in this an edge of the second molar was caught. This apparatus remained in place for three weeks without loosening, and I obtained a good result.

I have employed a number of mouth washes in these fractures, but prefer a solution of liquor cresolis compositus of from ½ to 1 per cent strength. This solution should be used every hour or two during the day, and should be supplemented by copious irrigations of the same. The teeth should be thoroughly cleansed at least once a day with a pledget of cotton.

THE MISUSE OF ATROPINE IN EYE DISEASES.*

By LOUIS C. DEANE, M. D., San Francisco.

THE last score of years has seen the advent of a nuumber of new mydriatics, yet with all, the part which atropine plays in the realm of eye diseases has hardly, if ever, been attacked. It is not my motive here to disclaim the value of this wonderfully effective drug, but to curb to some extent its promiscuous use in the treatment of the eye. To show if possible where it might be used more judiciously, be supplanted by some other drug, or be dispensed with entirely.

It is with much interest that I have reviewed a number of our more recent text-books on the treatment of iritis and cyclitis. Without exception atropine has been spoken of as the remedy par excellence for these affections; this, of course, we all must admit. Is it not possible, though, that some damage might, or is likely to result from an unrestricted use of tnis drug?

In the very mildest case, where we are simply in doubt as to the exact condition of the iris, a drop of atropine solution will unquestionably dilate the pupil. We note that maximum dilation has been attained in less than an hour. To set at rest in our own minds the possibility of a congested iris, or mild iritis, we have paralyzed the accommodation for 10 days, and left the eye without protection against excessive amounts of light for this period. More judicious would have been the use of a drop of a solution of euphthalmine at this time, which, had we been iu error in our judgment, would have allowed the pupil to return to its normal size in a few hours, with accommodation unaffected. We might term this a *test drop;* if it fail in its action within half an hour, we are justified in using a stronger mydriatic, as scopolamine, which is quite as powerful as atropine, but has the advantage of allowing the pupil to return to normal size within 3 days. If an iritis is present, this drug can be pressed and used throughout the treatment, it having some advantages in such cases over atropine. Besides its much shorter period of action, it is not irritating to the conjunctiva and skin, and as it is used in solutions from 10 to 20 times weaker, there is far less danger from a general absorption of the drug and toxic symptoms so commonly observed during the use of atropine.

In violent forms of iritis with synechia and other marked symptoms, atropine is the drug above all others that we must rely on; but, allow me to suggest a reversal of the general procedure of from weaker to stronger, and recommend that we discontinue the atropine as the case progresses favorably, and use very weak solutions of scopolamine, and later euphthalmine.

It has been the experience of all oculists, that it requires great judgment to determine when to discontinue the mydriatic. We are guided by the rapidity with which the pupil contracts, whether the inflammation has quite subsided or not. If it does not begin to contract sooner than 2 or 3 days, the violence of the iuflammation has really expended itself. The reaction of the constricted blood vessels of the iris can well be supported by a more temporary mydriatic and the pupil readjusted as gradually as desired.

Iritis can hardly be considered, without taking into account cyclitis, as their relation to each other in inflammatory conditions is an old story; one or the other predominating but always associated. It is here that we have to be on our guard in the use of atropine. Tell me of an oculist whose best resources have not been taxed by a resistant case of iridocyclitis with increased intra-ocular tension, and who has not used atropine with great discretion, and I will tell you of a man who, by his thoughtlessness, has destroyed an eye. I desire to state a case in point.

R. B., male, aged 36 years, slender, under-nourished individual, consulted me June 1, 1904. No history of rheuma-

*Read before the San Francisco Society of Eye, Ear, Nose and Throat Surgeons, May, 1905.

tism or syphilis. The pupil of the right eye was widely dilated, slight pericorneal and conjunctival injection, punctate deposit on posterior surface of the cornea; cornea slightly hazy; no pain or sensitiveness on pressure; tension + T 1; fundus normal except for a pulsating artery; pulse 120; tongue dry, and patient in a generally nervous and demoralized condition. He had been under treatment for 3 weeks for a so-called iritis by an oculist, who had been using atropine as usually prescribed in these cases. His eye presented a marked glaucoma with a dense deposit on the cornea, and symptoms of general atropine poisoning; suffice to say that I used no more atropine, and the pupil commenced to resume its normal shape in a few days. I dared not use any myotic, as pilocarpine, on account of a cyclitis and possible iritis that I knew was only concealed by the glaucoma, produced by atropine.

Then came a most trying period, for though the pupil was contracted, the eye still remained hard, the artery still pulsated, and he now developed a few posterior synechia. With a 1-10% solution of scopolamine, the adhesions were separated, and then its use temporarily discontinued. So for 2 months the iris was kept in constant motion by these transient mydriatics, never obtaining a maximum dilatation or contraction, and so the inflammation subsided. The pupil would dilate after the use of hot fomentations, and I favored their use, also, internally, yellow iodid of mercury, and later inunctions.

In November, 6 months after the first attack, he returned with a distinct cyclitis of the left eye, showing a deposit on posterior surface of cornea, pericorneal injection, no pain, and pupil moderately active. I decided to use no mydriatic in this eye, unless I was forced to, but prescribed mercury as before, and hot fomentations. The cyclitis subsided within 4 weeks without having to resort to any local application. I believe that had atropine been judiciously used at the beginning of his first attack, or had it been supplanted by a weak scopolamine or euphthalmine solution, its violence would have been greatly lessened.

There is a large class of diseases of the eye involving the cornea, sclera, and conjunctiva where the iris may or may not participate in the process. I might mention as most prominent among them parenchymatous keratitis, sclerosing keratitis, ulcers of the cornea, scleritis, certain forms of conjunctivitis, especially those that are apt to involve the cornea, etc. In all such cases our first duty is to note the condition of the iris and attempt its dilatation, but one rule must commend itself:

The weakest mydriatic that will obtain and maintain a moderate dilatation is the best.

Atropine in the usual 1% strength is rarely called for and a solution of scopolamine of 1-10% to 1-20% should be used; one to two drops a day, in most cases, is sufficient. Why do these modified therapeutic measures commend themselves? First, they are in the vast majority of cases as effective; if not there is ample time to revert to the stronger solutions or atropine. This *graduated form of therapy* is particularly applicable to the eye, as we can observe here with great facility and accuracy the effect of drugs. Second, when I speak of 1-10 to 1-20% solutions, used once or twice a day, I am suggesting measures 10 to 20 times weaker, and resorted to less frequently than is usual, even granting that scopolamine is slightly more toxic than atropine. Third, the peculiar and irritating effect of atropine on the conjunctiva, often producing conjunctivitis, is of such frequent occurrence that in corneal troubles it greatly handicaps the application of the pressure bandage and the use of yellow oxide ointment or calomel, measures we mostly rely upon. Fourth, some corneal affections, where the eye is exceedingly sensitive to light, are aggravated by the use of a mydriatic, especially atropine; for while the disease often disappears in a few days the effect of the atropine remains for some time after.

For ophthalmoscopic examinations of the fundus, atropine is frequently used to dilate the pupil. Such a procedure is never justified and should be heartily condemned. Euphthalmine in strength of 2%, in a 2% solution of cocaine, makes an ideal mydriatic for such purposes, as a maximum dilatation of the pupil is obtained in half an hour, which passes off in 3 hours, the accommodation remaining unaffected.

In diseases of the fundus, such as optic neuritis, choroiditis, retinitis, and mydriatic should be used with some judgment. Where it is not absolutely indicated to control an associated inflammation of the iris, it is contra-indicated; because in such cases the less light entering the eye the better. If we are in doubt, euphthalmine or a 1-10% solution of atropine may be used.

Following uncomplicated operations for cataract, atropine or any mydriatic is generally not indicated and only the evidence of pain should prompt one to remove the dressing during the first few days in the search for an inflammatory condition. Why do we shun atropine in such cases where its application might act as a safeguard? Aside from its local irritating properties it is not uncommonly followed by constitutional symptoms, notably dementia. Atropine especially in the old, is particularly prone to cause a secondary glaucoma, and, as was generally believed, the removal of the lens does not lessen the chances of such a complication.

In discission for secondary cataract, the one real danger, and one which has turned many against it, is the fear of secondary glaucoma. A maximum dilatation of the pupil is necessary during the operation; if scopolamine is used and glaucoma follow it can be neutralized by eserine or pilocarpine.

After some years of heated discussion on the use of cycloplegics in determining the refraction of the eye, there have arisen advocates of 3 methods. Those who claim that sufficiently accurate results can be obtained without the use of a cycloplegic, and those, on the other hand, who believe in a prolonged and complete paralysis of accommodation as produced by atropine. The third are those who believe that a temporary paralysis of accommodation is sufficient, as when scopolamine or homatropine is used.

The first method must unquestionably be condemned for reasons too numerous to mention, and not germain to the subject. The last two (atropine versus a milder and more transient cycloplegic) are what confront us.

It is with some hesitation that I enter upon the subject. The weakness of all such discussion is that each has his method, and adheres to it more or less closely. Many advocates of homatropine have never used scopolamine, and seldom if ever atropine, for refraction; so opinions must vary as to detail. The value of atropine as a powerful cycloplegic is unquestioned, though I have failed to determine experimentally that the paralysis is any more profound than with scopolamine.

The duration of the paralysis of atropine is a strong and effective argument against it, the cycloplegic action lasting from 8 to 14 days, as compared with the 2 or 3 days of scopolamine. The increased toxic effects from atropine used repeatedly in 1% solution, and its greater liability to precipitate an attack of glaucoma, also favors the use of the more transient cycloplegic.

Much more could be said upon this subject of refraction, and the relative value of various cycloplegics and mydriatics, what aid they lend in obtaining practical results in correcting errors of refraction, also their deficiencies; but I do not desire here to enter into a discussion on this question.

THE NEW BIRTH CERTIFICATE BLANK; ITS IMPOSITION, NECESSITY AND CORRECTION; IT SHOULD BE "FRANKED" BY THE STATE.

By GEORGE E. ABBOTT, M. D., Pasadena.

REGARDING the new birth certificate blank, allow me to quote the following comment:

"We have been using for reporting births a very convenient, satisfactory and efficient postal card, short and concise, with questions printed clearly on one side and the health officer's address printed on the other. All we had to do was to fill it out and drop it in the next letter box. This we were glad to do for vital statistics. In using the new blank we are obliged to fold the blank (the present one, by the way, is just too large for the envelope), furnish and

address an envelope, furnish a stamp—sometimes in pocket, often not, and if not, keep it in mind until mailed. If the parents cannot name the child on the spot, 'insult is added to injury,' and we must go through the same process in sending a 'Supplemental Report.'

"This is an absolute imposition on several thousand physicians, just for the sake of four or five cranks who happen to be interested in vital statistics. I say, 'Millions for defense, but not one cent for tribute.' Hours of practice for charity, but not one minute for imposition."

The sentiment quoted above will certainly find a ready encore from many in the profession, because of its just criticism. At the same time the writer feels that there are few men really interested in their profession who would refuse to accept the additional trouble and slight expense incurred when they see the increased accuracy of the new blanks.

The most aggravating part of the "imposition" is that it is entirely unnecessary, and can easily be avoided. Will it not be wise for those interested in vital statistics—and who should not be, at least indirectly—to obviate these objections, which can easily be done? There is no reason why, and no excuse for, the blank certificate not being printed in the form of an envelope folder, addressed to the local or state officer of vital statistics, and "franked."

The state is interested in these vital statistics more than any individual, and the state certainly ought to have the power to "frank" its own mail, at least as much as an individual senator or congressman.

It is, of course, absolutely necessary for the state to ask and accept the gratuitous service from the medical profession; but in order to secure a hearty coöperation and complete returns from them, every facility for returning the blanks should be offered those who give the service.

The use of the present blank is most certainly an imposition on the medical profession at large. The birth certificate blank should be printed in the form of an envelope folder, with adhesive edge and franked, and thus let the printing press in one hour save the medical practitioners all over the state an immense amount of time and annoyance. Will not those in authority do this for us?

REPORT OF A CASE OF ATYPICAL RHEUMATISM.*

By WILLIAM C. VOORSANGER, M. D., San Francisco.

GIRL, 10 years of age, first came to me on May 16, 1905, at the Emanu-El Sisterhood Polyclinic, complaining of feeling ill generally, slight pain in stomach and constipation; she also stated that for the past 2 days a rash, which seemed to gain in intensity, had appeared on her body. Three weeks previous to this present illness the patient had had a slight attack of tonsilitis, lasting a few days. With this exception she had always been a remarkably healthy child, escaping even the usual diseases of childhood. Family history was particularly good, mother, father, 6 brothers and sisters all alive and well; no venereal or hereditary taints in the family history.

She was well nourished, rather well developed, tongue heavily coated, with free edges, pupils react normally, no disturbance in the course of the cerebral nerves, slight enlargement of the superficial cervical glands, no visible pulsations, face rather anxious, body, especially arms and legs, covered with an irregularly raised eruption, which in places shows signs of desquammating; temperature 102°, pulse 90, good tension, regular. Chest: Well developed, moves freely and equally upon respiration; lungs show no dullness to percussion and no abnormalities to auscultation. Heart: Borders not enlarged, tones pure, second sound over the aortic orifice slightly accentuated. Abdomen: Distended, somewhat painful upon pressure in epigastric region; dullness in left hypochondriac region. Liver and spleen not enlarged; reflexes, especially the patellar, slightly exaggerated.

The picture, presented upon initial examination, seems to be that of constipation, acute indigestion and urticaria, for which I treated the patient by giving her calomel gr. ¼ ten tablets, followed by citrate of magnesia; a milk and broth diet with rest in bed were also ordered. Upon the following day the patient's rash seemed to be vanishing, the howels had been evacuated several times, but the temperature still persisted at 102°. The child appearing lethargic, and the symptoms beginning to point that way, I suspected typhoid fever, and arranged my treatment accordingly. The urine twice carefully examined showed nothing abnormal, barring a high acidity. This second diagnosis seemed borne out by the character of the stools, which were very yellow and almost pea-soupy in character. However, this diagnosis was made impossible by the patient's temperature on the subsequent morning (May 18th) dropping to normal, the rash becoming very indistinct, and the patient presumably feeling better, although still very lethargic. I assumed after all that my original diagnosis was correct, and told the mother I should not call again. Two days later I was hurriedly summoned, to find my little patient with a temperature of 103°, pulse 100, feeling very wretched, tongue heavily coated, and a rash, for the third time, pronounced, and as before of a very irregular character, and what was most peculiar of all, redness and swelling of all the end joints and phalanges of the fingers and toes. The child stated that she had noticed nothing wrong about her hands and feet the night before, but upon awaking found the fingers and toes red, swollen and painful; in fact, the slightest pressure upon them seeming to cause her considerable agony. I carefully examined all the large joints of the body, the other joints of the hands and feet, fingers and toes, but could find no redness, swelling or pain upon pressure or motion. Assuming, nevertheless, that I had to deal with a case of arthritis rheumatica, I placed the patient upon aspirin gr. XL. per diem or gr. V. every two hours, the hands and feet were swathed in cotton wadding and bandages; absolute rest and light diet ordered. Upon the third day, after this treatment (May 23d), the temperature was normal, the rash disappearing and the redness and swelling in the joints almost gone; 3 days after this (May 26th) all symptoms, including rash, had disappeared, and upon the tenth day, or 16th, after initial onset of rash, the child was discharged and allowed to go around with her playmates. Up to the present time she has remained perfectly well, with no return of her joint trouble.

Now, with what condition beginning so simply did we have to deal? The course of the disease and its ultimate ready response to aspirin leaves no doubt in my mind that it was a case of rheumatic fever beginning with a purpura rheumatica. The onset was extremely atypical, since a purpura seldom begins a rheumatism, occurring mostly during the progress of the disease. The character of the purpura itself was atypical, since a purpura or peliosis rheumatica is most often regular, and not raised, just as any other purpura, all purpuræ nowadays being generally recognized as correlated hemorrhagic conditions. The eruption resembled more nearly an urticaria than any other skin lesion, and thirdly and most important the localization in the small joints of the hands and feet all of them swelling and reddening simultaneously, with absolutely no involvement of any large joints, is an extremely unusual happening. We know that rheumatism is common in children, shows at times peculiar types, but occurs mostly in the large joints, or, if the small ones are involved, they are seldom alone affected. Not only did this attack occur insolated in the small joints, but it involved 20 end joints simultaneously, the disappearance of the disease occurring in the same way as its appearance.

*Presented at the June Meeting of the German Medical Society.

Linguistic Crimes.

From the editorial pages of recent issues of two medical journals, the following sentences are taken:

"The fact that Dr. Thayer's **case** recovered completely after 7 weeks only makes this possibility more proximate." It is edifying to know that Dr. Thayer's **condition** recovered, but one cannot but wonder whether Dr. Thayer was equally fortunate.

In a learned editorial on the Curability of Paresis, is to be found the following: "It is, moreover, in the experience of many alienists that a **case** diagnosed with every apparent probability of correctness has occasionally turned out something else or has made an unexpected recovery." Certainly, if a "case" can make a recovery that fact would be most unexpected.

Wimer Suit Against the Board.

Some time ago a rejected candidate, W. W. Wimer, by means of mandamus proceedings, attempted to compel the board of examiners to issue him a diploma. The case came before Judge Hebbard, in San Francisco, and the court would not permit the board of examiners to introduce any evidence; Wimer's case was so trifling that the introduction of evidence by the board was, probably, considered a waste of time. It is to be regretted that Wimer attempted to prove his case by means of one of the examiners, Dr. J. B. Mitchell, a professor in the local eclectic school.

COUNTY SOCIETIES.

Alameda County Society.

The Alameda County Society held its regular monthly meeting on August 21st. No scientific papers were read, but the evening was spent in a discussion of plans for the purchase or construction of a permanent home for the society, a building which will be adapted to all its needs, both scientific and social, and which will belong to the society itself. The suggestion that the society proceed to acquire such property was enthusiastically received, a considerable sum was at once subscribed for the purpose, and it is assured that the society will within a few months be housed in its own building, thus taking a unique place among the societies of this coast.

Another matter of great interest and importance to the medical profession of this county was the adoption of amendments to the constitution whereby it is provided that all the business of the society shall be transacted by an executive board consisting of all the officers. This is in line with the methods of the A. M. A. and state societies, and it is hoped that it will effect an improvement in the character of the scientific work of the society by permitting time to be devoted to scientific and social purposes which was formerly squandered on useless discussions of business details. T. C. McC.

Orange County.

The Orange County Medical Association held its regular monthly meeting September 5th. After the usual routine of business, Dr. C. D. Ball read the paper of the evening, entitled, "Recent Lacerations of the Vagina and Perineum." It was a thoughtful, practical paper, one which interested every one present, as was evidenced by the animated discussion it brought forth. Dr. Ball emphasized the importance of securing coaptation of the muscular structures, and demonstrated the part they took in the formation of the pelvic floor. Some of the members advocated a delay of 24 hours before suturing the laceration, maintaining that the patient was then in better condition to have the work done; others were in favor of immediate repair, and argued with good reason that every hour the wound was left open exposed it to infection.

Dr. Wm. Freeman of Fullerton has promised the paper for October, and we are expecting an excellent program, as Dr. Freeman always writes a forceful, interesting paper. H. S. GORDON, Secretary.

San Benito County.

Whereas, We, the members of San Benito County Medical Society, in meeting assembled, deploring the loss of our honored and esteemed member, Dr. Geo. C. Porter; and

Whereas, By his death, to us has been lost a most able, charitable and conscientious devotee to the profession; and

Whereas, We are deeply conscious of the great loss we and the community at large have sustained by the death of our brother, a true, honest and valued friend; therefore be it

Resolved, That we acknowledge his untimely death with great sorrow and distress, and to his widow we tender our deepest and sincerest sympathy in this her hour of saddest bereavement; and be it further

Resolved, That these resolutions be inscribed in our minutes, a copy sent to his bereaved widow, one to the State Medical Society, and one to each of our county papers.

DR. L. C. HULL,
DR. F. O. NASH,
DR. R. W. O'BANNON,
DR. J. H. TEBBETTS,
DR. J. D. BALL,
DR. R. ROCA,
DR. W. T. HICKS,
DR. J. M. O'DONNELL, Secretary.

Santa Clara County.

The regular monthly meeting of the Society was held at the parlors of the Bristol Hotel, San Jose, on the evening of August 16, 1905, convening at the hour of eight, with the following members in attendance: Asay, President, in the chair: McNary, Wagner, Brown, Jordan, Burns, Paterson, Southworth, Holbrook, Marvin, and Osborne, Secretary.

Dr. W. W. Fraser of San Jose, and Dr. W. C. Chilson of Santa Clara were elected to membership.

Dr. E. F. Holbrook was introduced as the speaker of the evening and presented the subject of tubercular adenitis, speaking extemporaneously in lieu of offering a paper. His treatment of the subject was of a clinical character and his remarks were listened to with great interest.

Dr. H. C. Brown opened the discussion, expressing the opinion that the early and radical surgical operations for the removal of the glands in the uncomplicated forms of the disease were not to be commended, since other lines of treatment were usually sufficient and effective. He further entertained the society by introducing a male patient who had suffered some years from this disorder and had been subjected to various medical and surgical lines of treatment at the hands of Eastern practitioners, the history of which was gone over quite fully and critically. The discussion was further participated in by Drs. Paterson, McNary, Wagner, Jordan and Southworth.

Applications for membership were received from Dr. Marion Fairweather Stirling of Los Gatos, Dr. Archibald Cowdery MacChesney of Los Gatos, Dr. Edwin A. Kelly of State Hospital, Agnew, Cal., Dr. Morris J. Gates of Campbell.

The secretary presented the receipts covering membership in, and the transfer credentials from the Alameda County Society for Dr. Stirling, and on motion she was therefor regularly admitted to membership, the other applications passing to the Committee on Admissions. A. E. OSBORNE, Secretary.

Solano County.

The physicians of Solano county, in the latter part of July, met and began preliminary work of organization. On August 31st another meeting was held and final organization of the Solano County Medical Society was effected. The arrangements for this meeting had been very carefully worked up by the local committee, and it is to be regretted that more of the physicians outside of Vallejo did not take advantage of this opportunity to come in personal contact with each other. After luncheon the meeting was called to order by Dr. H. O. Miller, the President, and was addressed by the Mayor of Vallejo, Mr. James Roney. On the invitation of the Society, Dr. Jones spoke a few words on the subject of organization, and was followed by Dr. G. M. W. Lehman, who exhibited some excellent lantern slides of X-ray work, and by Dr. Emmett Rixford, who spoke upon the subject of fracture of the astragalus. After this portion of the meeting there were general remarks on the subject of organization and the efforts to be made to secure the membership of every eligible physician in the county. The roster was left open for 60 days, to give every eligible physician in the county an opportunity of joining as a charter member. At this meeting the following physicians qualified: H. O. Miller, Rachel Lane, J. W. Huckins, J. J. Hogan, Emily Hartman, C. E. Arnold, F. T. Bond, Bernard Klotz, S. G. Bransford.

We certainly extend to this, the youngest of our societies, every assurance of good will. We sincerely trust that the physicians of Solano county may unite in this opportunity to establish a county society, and we shall be glad to welcome them in affiliation.

Ventura County.

The Ventura County Medical Society held its quarterly meeting at Saticoy, September 11th, at the residence of Dr. Charles Teubner. After the election to

membership of F. H. Huning, County Physician and physician to the County Hospital, and the disposal of routine matters, Dr. Teubner read a paper on typhoid fever. The paper was discussed by the President, Dr. Livingston, and Drs. Cunnane, Love, Maulhardt and Dilworth. The members then repaired to the dining room, where the genial hostess, Mrs. Teubner, had prepared a repast, to which ample justice was done.

CHARLES TEUBNER, Secretary.

CALIFORNIA ACADEMY OF MEDICINE.

Regular meeting held August 22, 1905, the president, Dr. Dudley Tait, being in the chair.

Tendon Transplantations for Infantile Hemiplegia. Dr. S. J. Hunkin demonstrated a boy, 11 years old, who had infantile spastic hemiplegia, with the typical club hand and foot. The hand was strongly pronated and ulnar-flexed, and could only be approximated to the face with its posterior ulnar border. Eight weeks ago the tendon of the pronator radii teres was detached from its insertion, a silk tendon was sutured to it and then passed around the radius posteriorly and fastened under the periosteum at or just below its original insertion. This muscle, therefore, now acts as a supinator instead of as a pronator, and the boy is able to feed himself with that hand and carry a glass of milk to his mouth. At a later operation the tibialis posticus was divided as it passed behind the ankle, the proximal end was passed posterior to the tibia and fibula to the outer side of the leg, and then subcutaneously to the outer border of the foot and planted with silk under the periosteum at the base of the fifth metatarsal bone. The distal end was sutured to the Achilles tendon. As a result the boy can now, for the first time, dorsi-flex and pronate the foot. Dr. Hunkin called especial attention to the fact that the boy could make these new movements without training as soon as the splint was removed. He now proposes as a final operation to move the flexor carpi ulnaris to the position of an extensor; for when the wrist is well extended the hand flexors work to better mechanical advantage.

Diffuse Dilatation of the Esophagus. Dr. H. C. Moffitt showed a patient who had had difficulty in swallowing for about 7 years, off and on. Patient knows of no injury to his esophagus. He has the sensation that his food is stopped before it reaches his stomach. It may then return to his mouth, or it may cause him choking sensations, together with dyspnea and palpitation. More recently he has had cramps under the sternum. He can sometimes assist the passage of food through his esophagus by taking a long breath and throwing his head back. At present a stomach tube cannot be passed into the stomach on account of an obstruction that is met about 47 cm. from the teeth. The esophagus will hold about 500 cc. of liquid, and the material obtained from it recently shows pus and blood cells. After the patient had swallowed a suspension of bismuth, an X-ray plate was taken, and this showed a diffuse spindle-shaped dilatation of the esophagus. Among the possible causes of such a dilatation are (1) a primary spasm of the muscle at the cardiac end of the esophagus, and (2) a primary diffuse weakening of the esophageal musculature due to a lesion of the vagus nerve. The direct cause is believed to be an acute esophagitis in some cases; in others it is believed to result from the habit of swallowing large masses of food too hastily.

Dr. C. M. Cooper stated that the esophagus normally will hold about 100 cc. of fluid. In the diagnosis of carcinoma of the esophagus, it is important to remember that the bronchial glands are frequently the first to be involved, and that their enlargement may be demonstrated by the use of the X-ray.

Dr. Geo. Blumer has seen a diffusely dilated esophagus at autopsy. Its walls were very much thickened, resembling those of a congenitally dilated colon.

Leprosy Simulating Syringomyelia. Dr. H. C. Moffitt presented a boy who had come from the Cape Verde Islands about 3 years ago. No satisfactory history of his present illness could be obtained. The skin showed an irregular pigmentation with somewhat oval or circular whitish patches scattered over it. The latter are not anesthetic, and they sweat after injections of pilocarpin. No stigmata of syphilis. The left small occipital, right great auricular, and the right ulnar nerves are somewhat thickened. Left hand claw-shaped, with atrophy and the reaction of degeneration in the smaller muscles. Right equinovarus with atrophy of foot extensors and reaction of degeneration in the tibialis anticus and the peronei. Reflexes normal except for the absence of the right Achilles and both plantar reflexes. Irregular anesthesias, especially of the distal portions of the extremities.

The differential diagnosis lies mainly between leprosy and syringomyelia. Against the latter are (1) the absence of scoliosis, of ataxia, of involvement of the sphincters, of spasticity of the legs, and (2) the peculiar distribution of the palsies (left hand and right foot), the widespread loss of sensation in the lower extremities and the thickening of the peripheral nerves.

Dr. D. W. Montgomery stated that the skin lesions are such as might occur in leprosy, and that the enlargement of the nerves is very strong evidence in support of that diagnosis.

Dr. H. Morrow said that it is unusual to see so much leucoderma in leprosy without a corresponding loss of sensation.

Dr. C. M. Cooper called attention to the fact that the ulnar nerves may be enlarged in other conditions than leprosy.

Vincent's Angina. Dr. H. W. Allen demonstrated smears showing the organisms of Vincent's angina. They were obtained from a patient who had had a sore throat, a temperature of 102.6° (possibly due to a complicating malaria), and an ulceration on the left tonsil which was the size of a ten-cent piece, and was covered by a grayish-white membrane. The breath possessed a peculiar fetid odor, resembling that of mouldy hay. The organisms obtained were two: a fusiform bacillus and a spirillum. These organisms are believed by Vincent to be the causes of a number of other infections, such as ulcerative stomatitis, noma, gangrene of the lungs and putrid pleurisy. Clinically the angina must be distinguished especially from diphtheria and syphilis.

Dr. Wm. Ophüls believes that it is not altogether certain that these organisms cause the angina, for similar ones may be found in the mouths, and especially about the teeth, of healthy individuals. It is possible that they are merely secondary invaders, and that the cocci that are almost invariably found in these throats are the primary causes of the lesions. We must differentiate this disease from that recently described by Oliver, which latter is due to an organism of the oidium group.

A. W. HEWLETT, Secretary.

Poppy Alkaloids.

In Vermont previous success in growing opium poppies has been repeated with even better results. The attempt to cultivate this plant has been made with a view to supplying our demand for poppy alkaloids for medicinal uses. As the result of the repeated experiments, success has at last attended the effort to obtain morphine directly from the juices of the plant. If this can be done commercially, the plants produced in American fields will replace Oriental opium as a crude source for morphine.

Marriage of Dr. H. E. Alderson.

Dr. H. E. Alderson, Secretary of the San Francisco County Medical Society, married Miss Cordelia Church Bishop on the 26th of September at the First Congregational Church in Oakland.

PUBLICATIONS.

Handbook of Anatomy. Being a Complete Compend of Anatomy, Including the Anatomy of the Viscera and Numerous Tables. By JAMES K. YOUNG, M. D., Professor of Orthopædic Surgery, Philadelphia, Polyclinic, etc. Second edition, revised and enlarged. With 171 engravings, some in colors. Crown octavo, flexible cloth, rounded corners. $1.50 net. F. A. Davis Company, publishers, 1914-16 Cherry street, Philadelphia.

It is unfortunately true that there is a considerable demand for books of this class. That they are useful for some purposes cannot be denied; nevertheless their general employment is to be deplored. Anatomy is a science which cannot be learned from compends.

This particular book consists of 402 pages, and the arrangement of the material is essentially the same as that of others, being based chiefly on Gray's Anatomy. Whilst this book is possibly better than some of its class, many of its descriptions are, from their very brevity, often confusing. The appendix vermiformis, for example, is dismissed in four lines. Surely this organ is sufficiently important to warrant more description than is given. Again the description of the perineum consists practically of nothing more than the recital of the names of the structures found in this region. If the student had to rely on this book for his knowledge of the anatomy of the female perineum, his ideas on this subject would remain primitive.

The importance of clear and accurate illustrations has, perhaps, nowhere been more emphasized than in dealing with anatomical subjects. It is unfortunate, then, that many of the illustrations in this compend are not better. With improvements in this respect and a revision of some of the text, we feel that the book would be very creditable. A. J. J.

The Surgical Assistant. A Manual for Students, Practitioners, Hospital Internes and Nurses. By WALTER M. BRICKNER, B. S., M. D., Assistant Surgeon, Mt. Sinai Hospital, Out-Patient Department, etc. 360 pages. 123 original illustrations and 116 illustrations of surgical instruments. New York: The International Journal of Surgery Company, 1905. Price $2.00 net.

This small volume of 363 pages has been chiefly written for hospital internes and nurses. Somewhat enthusiastic as to the possibilities suggested by the title, we were disappointed in the manner of treatment of what might have been a very interesting topic. However, the first two chapters on "The Conduct of the Assistant, and The Hospital Interne," contain subject matter of considerable importance. Chapter III, which is entitled "Assistance in Examinations and Dressings," is certainly far from being suggestive, especially that section devoted to fractures and dislocations. The author's experience in this class of surgery is evidently quite limited. Chapters IV and V certainly do not flatter the intelligence of the hospital interne. Other sections are devoted to the subjects of "Anesthetics," "Methods of Sterilizing," "Handling Instruments" and "The Immediate Post-operative Care of the Patient." For the most part the treatment is superficial, and the chapter on "The Post-operative Care of the Patient" is, on the whole, inferior to that found in some text-books of nursing.

The remainder of the book consists mainly of a recital, with brief descriptions, of some of the common surgical operations. Many of the procedures are not as well described as in the average text-book of surgery. Throughout the text there are "123 original illustrations." Many of them are actually ridiculous. Finally the book is concluded with an appendix which contains, among other things, methods for preparing suture materials, and illustrations of various surgical instruments. With reference to the latter, we feel that the reader would derive infinitely greater information by consulting a good instrument maker's catalogue.

Although this little book will undoubtedly be met with approval among a certain class of readers, it does not meet the demands of intelligent hospital internes. Where the writer should have been original he has not even proven suggestive. A. J. L.

New Licentiates.

The following is the list of those who passed the July and August examinations of the State Board:

W. C. Alvarez, H. L. Avery, A. A. Atkinson.

W. A. Bayley, Adolph Berg, S. J. Brimhall, Lois V. Bronson.

George E. Chappell, Frank F. Clair, W. F. Cothran, A. F. Cowder, C. D. Cowles.

Percival Dolman.

Edw. W. Earing, Frank W. Edmonds, J. C. Egeberg.

Clifton M. Faris, John Hayes Fisher.

Marcus Goodson.

Joseph H. Hall, J. S. Hanlon, Albert J. Haskins, A. T. Hembree, Hermann V. Hoffmann, Lucius J. Huff, R. H. Hunt, Walter Hurst, Woods Hutchinson.

Josephine A. Jackson.

Charles W. Lawton, H. Clifford Loos.

Marion B. McAulay, John S. McEachern, James H. McKellar, Albert Henry McNulty, Edw. W. Merrithew, Roy Henry Morris.

James E. Nelson, Jennie E. Nesbitt, Ephraim Northcott.

A. L. Offield.

Fred W. Peterson.

William Quinn.

A. J. Remmel, M. H. Ross, Louis X. Ryan.

J. F. Sherfy, Jessie H. Simpson, H. F. Sloane, F. H. Smith, P. C. Smith, George S. Snyder, P. H. Sunde, Harry L. Swauger.

D. A. I. Thieme, Mary L. Thomson, E. C. Turner.

J. I. Vickerson, H. M. Voorhees.

Calvin A. Walker, J. W. Watenpaugh, Phil H. Weber, Harry I. Wiel, Phil L. Wise, William F. Wismar, G. A. Wood.

Albert F. Zimmerman.

Wood Alcohol.

Practically pure methyl alcohol is on sale in the United States under various names. Among these, Columbian, or Manhattan, spirit may be mentioned. The toxic character of this alcohol is so pronounced as to render it advisable that every package containing it—no matter what the trade name may be—should be plainly marked, as is required for poisons. Unpurified wood alcohol is known also as wood spirit and wood naphtha.—H. W. Wiley, in *N. Y. Medical Journal.*

July-August Examinations; a Correction.

In transcribing the result of the recent examinations a slight error crept in. Under the caption "Failed," at the July examination, the Hahnemann Medical College of California is credited with 3 candidates. This is an error, as one of these applicants graduated from the Hahnemann College of Philadelphia.

Herzstein Lectures.

The University of California invites you and your friends to be present at six lectures on special chemical problems related to practical medicine to be delivered by Dr. Alonzo E. Taylor at eight o'clock in the evening at the Mark Hopkins Institute of Art, San Francisco. The dates and subjects of the lectures are as follows: October 10th, "The Toxic Agent in Gastro-Intestinal Auto-Intoxication"; October 13th, "The Theory of Disinfection"; October 17th, "The Relations of the Nitrogenous to the Carbonous Metabolism in Disease"; October 20th, "The Value of Kryoscopic Investigations for Pathology and Diagnosis"; October 24th, "The Derivation of the Body Sugar in the Diabetic"; October 27th, "The Derivation of the Body Sugar in the Diabetic."

Examinations in Obstetrics.

To the Editor of the STATE JOURNAL: I trust that you will accord me the courtesy of the JOURNAL, that I may enter a protest as to the authenticity of facts, as set forth in the issue of September, under the *ad captandum* title, "A Worthy Examiner." Without disparaging the transcendent merits of the examiner in question, I am constrained, in justice to the Board of Examiners, and in defense of gentlemen, who had the honor (or misfortune?) to examine in obstetrics, to point out to your readers, that the data touching such examinations in the past is quite erroneous. The following figures showing percentage of failures in obstetrics, for the years 1903-04, will best subserve the argument. At the several examinations of 1903, the percentage of failures in obstetrics was 8.7, and in 1904 the failures to pass in this subject were 9.11 per cent. In the light of these facts, the *extreme* jocundity of examinations in obstetrics is not strikingly apparent. Yours very respectfully,

W. S. THORNE.

[It is to be regretted that Dr. Thorne feels any personal irritation at the editorial note referred to, as the writer of the said note states that he did not know that Dr. Thorne had at any time conducted the examination in obstetrics. The statements as given in the editorial were made independently by two members of the board, and also by several candidates, and have been reiterated by other candidates subsequent to the receipt of Dr. Thorne's letter. The records of the board give the following percentages of those who failed to pass the examinations during the period referred to: July-August, 1903, failed 26.8%; April, 1904, failed 27.4%; July-August, 1904, failed 37%; October, 1904, failed 32%. Dr. Thorue is to be commended for calling attention to the fact that the generally expressed feeling that the examinations in obstetrics were unusually easy is not so markedly apparent from the records when the actual figures are considered. This is a case just the reverse of that illustrated by the geueral feeling—now shown to be somewhat unreliable—regarding pathology, which was considered exceedingly difficult but which the records show to be about the general average, though decidedly higher in percentage of rejections than obstetrics. A typographical error is to be noted in the editorial under discussion; the minimum 50%, as therein published, should be 75%.—ED.]

Mississippi Valley Medical Association.

At the next meeting of the Mississippi Valley Medical Associatiou, to be held at Indianapolis, Ind., October 10th, 11th and 12th, the annual addresses will be delivered by Dr. Arthur R. Edwards, of Chicago, and Dr. W. D. Haggard, of Nashville, Tenn.

Dr. Edwards has chosen for the subject of his address, "Certain Phases of Uremia, Their Diagnosis and Treatment," and Dr. Haggard will discuss in his address, "The Present Status of Surgery of the Stomach." In addition to these addresses, there will be the annual address of the president, Dr. Bransford Lewis, of St. Louis.

A cordial invitation is extended to every physician in the valley to attend this meeting, for which a large number of interesting and valuable papers have been promised.

Dr. Olmacher Joins Frederick Stearns & Co.

Dr. A. P. Olmacher, recently of Gallipolis, Ohio, has been appointed director of the biologic laboratories of Frederick Stearns & Co., of Detroit, and has entered upon the duties of that position, which are chiefly those of original research in biologic therapeutics.

Medical men familiar with the literature of pathology, bacteriology and serum therapy in America, know Dr. Olmacher as a pioneer investigator in these branches of science. He was one of the first bacteriologists in this country to immunize a horse against diphtheria, and to produce a serum of clinical value.

IN ALL FEVER CASES

the liberal use of the odorless solution of metallic chlorides, commercially known as "Platt's Chlorides," is recommended for disinfecting the discharges, deodorizing and refreshing the air of the sick-room, by the most eminent physicians and sanitarians, among whom are;

Dr. H. S. Orme - - Ex-President, California State Board of Health.
Dr. Benjamin Lee - - Secretary, Pennsylvania State Board of Health
Dr. Thomas Darlington - - - President, New York Board of Health
Dr. Samuel H. Durgin - - - Health Physician, Boston, Mass.
Dr. Heman Spalding - - - Chief Health Inspector, Chicago, Ill.

For disinfecting dejecta, dilute one part chlorides with 4 parts water.
For deodorizing by sprinkling and for moistening towels or cloths to be suspended in the sick-room, dilute one part chlorides with 10 parts water.

Platt's Chlorides,

The Odorless Disinfectant

A colorless liquid, sold in quart bottles only. Manufactured by Henry B. Platt, N. Y.

FORMULA—A combination of the saturated solutions of Chloride Salts, proportioned as follows: Zn 40 per cent., Pb 20 per cent., Ca 15 per cent., Al 15 per cent., Mg 5 per cent., K 5 per cent.

California State Journal of Medicine.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. III NOVEMBER, 1905. No. 11

Every practicing physician should have a copy of the United States Pharmacopeia, 8th Decennial Revision.

EDITORIAL NOTES.

MEDICAL EDITORS.

In a recent issue of one of the larger medical weeklies—a publication which expressed, through the correspondence of its owner and publisher, an exceeding thoughtfulness for the nostrum manufacturer in his delectable business of exploiting the physician and the patient—appeared an editorial dealing with the subject of those qualities which should be possessed by the ideal medical editor, and inferentially suggesting that very few such eminent editors are known to exist, which statement is probably correct. From the ludicrous egotism of the editorial in question, one might almost be pardoned for a slight suspicion of delusions of grandeur; but we will let that pass. The catalogue of virtues and qualifications of which the happy ideal medical editor should be possessed includes everything desirable except one—honesty. Honesty in dealing between the professional supporters or subscribers and the nostrum advertisers who prey upon them, seems to be ignored. Simple, homely honesty, we are beginning to be taught, is quite commonly ignored in high places. "There exist throughout this country scores of medical journals edited by men whose lack of literary apprenticeship and editorial training is demonstrated on every page." He might well have added that their commercial instinct, their disregard for any ethical, professional or humanitarian consideration, and their absolutely cold-blooded greed, are demonstrated with equal clearness on almost every page. The ideal, or, if you will, the quite competent medical editor "must recognize that his principal duty is the ignoring of self-interest *in his reviews and criticisms,*" etc. [italics ours]. Exactly. But let him not ignore his self-interest so far as the advertising pages are concerned. Let him accept money from any unscrupulous person who may wish to exploit the medical profession and delude its members into using some worthless nostrum. Let him sit dignified in the editorial chair and ignore the fact that such things as advertising pages exist, and that they not infrequently do great harm to that profession which it is his to serve and guide. It is undignified to take cognizance of such mere business details as advertising pages when learned editorials are to be written and published. It is undignified to observe that the medical profession have been made fools of, for a generation or more, by unscrupulous "manufacturers." It is "sophmoric," "erratic," "puling," "mendacious," "fanatic," "bragging," "defiant," "rabid," "neurotic" and several score more assorted adjectives, to speak out, to call a spade a spade (and not a useful horticultural implement), to say that it is dishonest for medical journals to advertise dishonest or fraudulent articles or such things as do an injury to the public and to the medical profession. This ideal editor would do none of these things. No, indeed! Not because he would ignore self-interest, but because he would have it cultivated to the very highest degree.

FEES FOR EXAMINATIONS.

We publish a very interesting letter from the medical director of an insurance company doing business in this state, and paying $3.00 fees for $5.00 work, on page 367. This letter should be rather a warning to the unfortunate policy holders of this company, for it indicates that a spirit of false economy is actuating the directors in the conduct of the company's business. The investigations of the special commission, in New York, are daily adding to the public store of knowledge of the mismanagement and misappropriation of funds by insurance companies. The policy holders' money is not for the examining physician, nor is it for the policy holder—it is for the directors to use in manipulating deals and in increasing their personal fortunes. Perish the thought that the humble physician, who merely makes the examination on which the issuance of the policy depends, should receive $5.00 for his services instead of $3.00! Preposterous! Do the presidents not need an increase in salary? How can they longer continue to live on a paltry $150,000.00 or so a year? This very company in question is said to have written $9,000,000.00 worth of insurance last year, and it has also been said that if it increased the fees from $3.00 to $5.00, it would have cost the company $10,000.00. Just think of it! And yet this very company is reported to be making money so fast that it hardly knows what to do with it. But to pay a fee of

$5.00 for an examination? Impossible! Perhaps some bad risks are taken, as a result of cheap and careless examinations, but who cares? It's only a little of the policy holders' money that is paid out; and at any rate, that $10,000.00 has been saved.

THE MEETING NEXT YEAR.

The next annual session of the State Society, to be held in San Francisco, April 17 to 19, 1906, will mark the beginning of the second fifty years of its existence. The committee on program has been at work for some time, and has about decided to arrange for the whole week, providing clinics and hospital work for the days not devoted to the official meetings of the Society —Tuesday, Wednesday and Thursday. Dr. Edward Jackson, of Denver, President of the Rocky Mountain and Inter-State Medical Association, suggested a meeting of that Association with our Society at the time of our meeting, to the end that the matter of forming a Pacific Coast branch of the A. M. A. might be discussed and possibly organized. This matter was presented to the Council at its meeting of September 30th, and was approved. The Council indicated Friday, April 20th, as the day for this special session, and instructed the secretary to have the program printed as a part of the regular program of our own meeting. Thus it would appear from the present condition of things, that the third week in April, 1906, will be a memorable one to our members in many ways. The attendance will undoubtedly be large, and the program offered is expected to be very rich in excellent clinical material and carefully arranged symposia.

SAN FRANCISCO CHRONICLE.

That highly upright, virtuous proper, honest and enlightened daily publication, the *San Francisco Chronicle*, seems to have undertaken to establish a semi-scientific medical department. In its issue for October 6th, it stated, editorially—and erroneously—that the medical profession of this state endeavored to secure the passage of a bill "to compel persons afflicted with the commonest ailments to procure a prescription, and of course to pay the doctor for prescribing." Referring to "proprietary medicines," it says: "Utterly disregarding the fact that a large number of proprietary medicines [the *Chronicle* undoubtedly means nostrums advertised and sold direct to the laity, for certainly the philanthropic *Chronicle* would not devote its valuable space to a question of purely medical interest and one which did not affect its pocket] are prepared according to formulas which they could not improve upon if they tried, and fully aware that these remedies for the minor and less complicated ills would prove fully as efficacious as any they could prescribe, they persistently seek to proscribe the sale of all patent medicines. Of course the pretense is that the sole object is to guard the public against the use of pernicious drugs." Now, why does the *Chronicle* make such a bitter and uncalled-for arraignment of the medical profession? Might it possibly be explained if, in the business office of the *Chronicle,* there are a number of contracts bearing this phrase: "It is mutually agreed that this contract is void, if any law is enacted by your State restricting or prohibiting the manufacture or sale of proprietary medicines"?*

ADVERTISING PAGES.

The general tone of exalted self-esteem with which the editor of the *Medical Record* disdainfully remarks that its advertising pages are never referred to in the editorial pages, is almost killingly funny. It reminds one strongly of the highly edifying ostrich who buries his head in the sand to avoid the disagreeable incident of being found. But the *Record* has been found out, and its policy of silent contempt will hardly answer. It has disclosed its perfect willingness to take your money for subscription, and then to permit its advertisers to ridicule your national organization in its advertising pages—which are editorially ignored. Of course they are ignored; if the gentlemen in the editorial department did not ignore them, it would be disastrous to editorial dignity. The correspondence between the editor of the *Journal A. M. A.* and the editor of the *Medical Record* is published on another page, and is well worth your attention.

COLLIER'S ON NOSTRUMS.

In its issue for October 7th, *Collier's Weekly* began the series of articles by Mr. Adams, revealing the inside rottenness of the nostrum fraud, not only as affecting the general public, but also as it concerns the nostrums exploited to and through the medical profession. These articles should be read by every physician who takes the slightest interest in his profession or in professional decency. It is almost impossible to quote from them without distinct loss, and we have not space to reprint them entirely, though we should be delighted to do so. Mr. Adams shows how the unspeakable nostrum makers practically own and control the newspapers of the country, and through them the state legislatures, and then refers to similar bondage of medical publications. He says: "One might expect from the medical press freedom from such influences. The control is as complete, though exercised by a class of nostrums somewhat differently exploited, but essentially the same. * * * 'Syrup of Figs,' for instance, which makes widespread pretense in the dailies to be an extract of the fig, advertises in the medical journals for what it is, a preparation of senna. Antikamnia * * * for a long time exploited itself to the profession by a campaign of ridiculous extravagance, and is to-day by the extent of its reckless use on the part of ignorant laymen a public menace. * * * There are to-day very few medical publications which do not

*This is the clause referred to as the "Magic Red Clause," by Mr. Samuel Hopkins Adams in *Collier's*, October 7, 1905.

carry advertisements conceived in the same spirit and making much the same exhaustive claims as the ordinary quack 'ads' of the daily press, and still fewer that are free from promises to 'cure' diseases which are incurable by any medicine.* Thus the medical press is as strongly enmeshed by the 'ethical' druggers as the lay press is by Paine, 'Dr.' Kilmer, Lydia Pinkham, Dr. Hartman, 'Hall' of the 'red clause' and the rest of the edifying band of life-savers, leaving no agency to refute the megaphone exploitation of the frauds."

THE ONES ENMESHED.

In this article Mr. Adams mentions a few of the rank nostrums which, through the medium of the dirty dollars they pay to medical journals for the purpose of aiding in defrauding the medical profession and the sick by means of advertisements, reading notices and paid-for "original" articles, have been prominent in debauching the profession and enmeshing the medical press in this tight-drawn net of fraud. "Ponds extract," "antikamnia" and "fig syrup" are specifically mentioned. A casual glance through a few of the medical journals at hand discloses the fact that one or more of these nostrums may be found in the advertising pages of the following "enmeshed" journals: *American Journal of Progressive Therapeutics* (truly "progressive"!); *American Medicine* ("founded, owned and controlled by the medical profession of America"?); *Boston Medical and Surgical Journal; Canadian Journal of Medicine and Surgery; Chicago Medical Times; Cleveland Medical Journal; Clinical Review; Colorado Medical Journal; Eclectic Medical Journal; Kansas City Medical Record; Louisville Monthly Journal of Medicine and Surgery; Lancet-Clinic; Maryland Medical Journal* (official organ of the state medical organization); *Medical Bulletin; Medical Counselor; Medical News; Medical Record* (too dignified to pay any attention to its advertising pages, and willing to permit its advertisers to insult the medical profession and the American Medical Association); *Medical Times; Medicine; New Orleans Medical and Surgical Journal* (official organ of the state medical organization); *New York Medical Journal* (its publishers invited the nostrum makers to express their indignation at the formation of the Council on Pharmacy and Chemistry of the A. M. A. in the pages of this journal); *New York Medizinische Monatschrift; Pacific Medical Journal; Physician and Surgeon; St. Louis Medical Review; St. Paul Medical Journal* (owned and published by the Ramsy County Medical Society); *Northwest Medicine; Medical Sentinel; Brooklyn Medical Journal* (published by the Medical Society of the County of Kings); *Journal of the Kansas Medical Society* (official organ of the State Medical Society); *Wisconsin Medical Journal* (official organ of the State Medical Society); *Annals of Gynecology and Pediatry; American Journal of Surgery; Illinois Medical Journal* (official organ of the State Medical Society); *Western Medical Review* (official organ of the Nebraska State Medical Association); *Nashville Journal of Medicine and Surgery; Northwestern Lancet* (official organ of Hennepin County Medical Society); *Medical Review of Reviews; American Journal of Obstetrics; Albany Medical Annals;* and this is not all of them.

Does it begin to be apparent why the medical press is so exceedingly quiet when the subject of nostrum advertising is mentioned?

*Among others, the "Butler Positive Treatment," a sure cure for tuberculosis (*Alkaloidal Clinic*), and "Tr. Antidiabetica," a positive specific for Diabetes Mellitus (*Med. Review of Reviews*).

YELLOW FEVER.

Drs. Pothier, Hume, Watson and Couret, of New Orleans, announce, in the *Journal A. M. A.* for September 23d, the finding of some previously unnoted bodies in the blood of yellow fever patients during the first four days of the infection. They do not make the definite claim that these are the micro-organisms causative of the disease, but they intimate the possibility. In view of the well-known filter test of the first yellow fever commission under Dr. Reed, it would seem doubtful that these bodies are, at least in the form noted, the responsible organisms. Still, they possess certain characteristics which will probably be noted in the causative micro-organism of yellow fever, when it shall be definitely recognized. If the transmission of a disease from human host to human host requires and necessitates a period of entertainment and change within an intermediate host, it is obvious that the direct transfer of unmodified infected blood from the primary host to a secondary host will not produce the disease. In all known diseases conveyed by an intermediate host, the responsible organism is thoroughly encapsulated, and the removal of this capsule or investing membrane, with the liberation of the contained organism and its subsequent modification and preparation for a second human host, can only take place within the intermediate host. While it may be freely granted that analogy is comparatively valueless in science, still it seems probable that conditions similar to those known to exist in other tropical diseases conveyed to man by an intermediate host will be found to prevail in the case of yellow fever.

PEPTO-MANGAN

We take great pleasure in publishing elsewhere in this issue of the JOURNAL some matter from the *Journal A. M. A.* concerning the "proprietary" known as "Pepto-Mangan (Gude)"—but not "good." The garbled and distorted extract from the report of the Porto Rico Commission has been appearing with regularity in the various representatives of the subsidized medical press of this country, and doubtless a number of honest and confiding physicians have been fooled into believing it. What shall we say of a manufacturer whose love for the medical profession is so great that he will sink to this sort of misrepresentation (to use no harsher word)? For years, this "proprietary" has been widely advertised in medical journals—and in drug store windows to the public. For years

a venal medical press has published endless "reading notices" and whole articles, purporting to be original scientific papers, puffing and lauding "pepto-mangan"; and now we find it, after careful investigation, to be less than half so valuable as other and respectable pharmacopeial preparations of iron. Some years ago a prominent physician in San Francisco took a ward in a hospital, divided it in half, and placed one-half of the patients on "pepto-mangan" and the other half on tincture of the chloride of iron. Careful blood examinations were made, and it was found that the patients receiving the chloride improved; those getting the "pepto-mangan" did not. The dirty money of the unscrupulous manufacturer will do almost anything; it will buy any amount of space in so-called medical journals, and it will enable the spender to present any-old-lie disguised as plausible truth, to the medical profession.

DR. McCORMACK'S ADDRESSES ON ORGANIZATION.

Every physician in the state who has not availed himself of the opportunity to hear Dr. McCormack at one or more of his meetings, has suffered a distinct loss. There is probably no man living in this country to-day who so thoroughly understands existing conditions in the medical profession, or who has given such an object lesson of what an improvement can be secured by careful, persistent, conscientious work. The JOURNAL will endeavor to give an outline of his remarks in this and subsequent issues, but cold type can but faintly imitate the spoken word.

Any attempt to secure necessary or desirable legislation for the protection of the public, if originating in or supported by medical men, will reveal a rather unpleasantly startling condition. Very many legislators will say that while the measure appears to be a good one, their lack of respect for the medical fraternity is such as to make them skeptical of the proposition and of the possibility of there existing some ulterior motive. Further investigation will show that this feeling is shared, in large part, by many laymen other than legislators. Inquiry elicits the fact that this unfavorable opinion results from statements made by physicians themselves. Quite probably the family physician of the legislator in question has told him, of course confidentially, that most of the other physicians in his vicinity are really not up to standard; that such-a-one has made a gross error of diagnosis; that another is disreputable; that still another has lost several patients by careless operations, etc. Another man from the same district, who happens to have a different physician, has been advised that all the other doctors in that community, including the medical adviser of the first man, are not what they should be. And so it goes. In short, the tales and the tittle-tattle of the physicians themselves have destroyed the respect which should be had for them.

In other professions the members are much more harmonious; they dwell together in charity. Why is this? Observation indicates that there is a lack of harmony and unity in those walks of life wherein the individual leads an isolated life. Doctors but seldom come in contact with each other in the discharge of their professional work. Each one has a certain following which considers him about the best of his kind, and in due course he begins to be possessed of the same idea and to regard his fellow practitioners as rather below him. Added to this must be considered the idle comments of nervous and gossipy old women, who will persist in maligning one physician to another, if the attendant at the time will but listen to them. Thus is still further estrangement produced. Dr. Osler has well pointed out the danger of listening to the disparaging remarks of a patient upon another physician, and it must be remembered that if the patient will rend her previous medical attendants limb from limb, she will doubtless extend the same courtesy at some future time to her present or future physicians.

Only by coming into personal contact at frequent intervals can medical men really know and appreciate each other, and as their occupation does not bring them together in the regular performance of their professional duties, this end should be secured by frequently meeting together in societies. If the physicians of any community exhibit little or no respect for each other, the laymen of that community can hold but little respect for them all as individuals or for the noblest of professions which they are disgracing. This is but natural, and nothing else could be expected. In communities where the medical men are at outs, where they show little if any respect for themselves, each other or their profession, a distinct harm results not only to themselves, but to their patients and the community in general. The physicians in such places tend to reduce their just fees and to cut into each other; they allow quacks to rob the sick and the poor; they resort to or permit contract and lodge practice, a most disastrous and unfortunate evil; in short, they slowly but surely fall below the standard which they should keep up to, and they become less competent doctors. Thus the community suffers not alone a loss in proper respect for what should be regarded as the highest and noblest of professional callings, but it finds itself served by cheap doctors and inefficient ones; by men who, in numerous cases, are so reduced in the financial side of their professional work that they cannot supply themselves with a proper equipment or with sufficient literature to keep abreast of the times.

All of these evil conditions physicians bring upon themselves by and through their ignorance and their petty jealousies, their quarrels and slanderings, their general lack of appreciation of each other and of one another's work. In medical schools, students are not taught, as they should be, the fundamental principles of medical ethics and right conduct; too often they are taught, by word and precept, a spirit of professional jealousy and rivalry, and leave the door of their medical school with anything but a correct appreciation of the medical gentlemen who are connected with

other teaching institutions. Thus at the very commencement of their professional life a wrong start is made, due to an error in education, and they go out into the world to practice, to lead more or less isolated lives, to treasure the spirit of contention, and to add to the disrepute in which our profession is placed by our own members.

In many small towns where two or three physicians are practicing—and fighting—the entire community is rent by these medical dissentions, and men who should be friends and partners in their work, are not on speaking terms, but are detracting each from the standing and the usefulness of the other, and all are equally bringing down reproach and disesteem upon the entire medical profession. People judge of general conditions, very largely, from their own personal experience; it is an axiom that we can only think in terms of our own experience, and if an individual is born into and grows up in a community where the physicians belittle each other, and hence their profession, he will grow to adult life with little or no respect for the entire profession represented—or rather misrepresented—by these quarrelsome doctors.

Financially—and this is an exceedingly important matter—they all suffer. It is important, for the physician should have a sufficient income with which to keep himself up to date; to equip his office with those things which he needs in the proper care and treatment of his patients; to supply himself with sufficient literature to keep his mind educated, and to know what other men are learning and discovering and successfully using. A doctor who is making a bare living, who cannot supply himself with the necessary tools of his profession, is a poor doctor for the community to depend upon. Where there are these baseless quarrels and dissentions, the physicians will not consult or work with each other. When one of them is confronted by a case which he cannot understand, or cannot handle if he does understand it, instead of calling in his neighbor, who possibly is quite competent to handle the case, he sends the patient away to a distant city, and thus turns from the community—and from himself—a certain amount of money that should remain at home. As has been pointed out, the injury is not alone to him or to his colleagues, but to the community as well, for the people do not get the service and the attention from their poorly paid physicians which they are entitled to receive, and which they should pay for. The education of the competent physician never ends, and the day of the ignorant doctor has gone by. But to keep up this education, a certain income is absolutely essential, and to secure this income it is equally essential that harmony take the place of discord, and that strife and misunderstanding give way to peace and understanding.

In the legal profession, we almost never see serious dissention. Lawyers have always worked together in harmony, and it has been said that two lawyers will not quarrel unless both have received a good fee—in advance. If we investigate this, we quickly see the reason. A lawyer's work brings him constantly into contact and association with other lawyers; his whole life work is a post-graduate education; every trial is a clinic; his education is of necessity and by virtue of the very nature of his calling, constantly uppermost, even though unconsciously so. The lawyer meets his kind every day that he practices his profession; he learns to appreciate his own weaknesses and other men's strength; his mind broadens from day to day and from year to year; he does not lead an isolated life.

Contrast his case with that of the average physician, whose calling forces him to lead an isolated life; who infrequently comes into direct contact with his kind in the course of his work; whose calling is narrowing rather than broadening; whose further education is a matter of direct personal effort, and not a matter incident to his work; who is daily exposed to the temptation of believing the tales and the gossip so generously poured into his ears by irresponsible people. It is estimated that there are over 80,000 physicians in this country who have never belonged to any medical society, and that there are 50,000 who have never taken or received any medical journal save such as may have been gratuitously sent to them, like the *Medical Brief!*

(To be continued.)

SCIENTIFIC WORK MISREPRESENTED AND COMMERCIALIZED.

In pursuance of the deliberately assumed purpose to enlighten the physicians of the United States on all features of the traffic in proprietary remedies, there will be offered to our readers not only information regarding the composition of such remedies, but also facts concerning the methods of their advertising and sale, which come to light in such shape as to be of service to the profession. No firm or product will be subjected to attack, but publicity will be given to all facts obtainable. Having in mind this purpose, the following recital of facts is offered to the profession as an illustration of methods employed in the proprietary trade, and as a step in the era of pharmaceutic publicity.

Under date of December 1, 1904, there was published by the government of Porto Rico a "Report of the Commission for the Study and Treatment of 'Anemia' in Porto Rico." The splendid scientific results of this study of uncinariasis we commented on editorially[1] February 11th, page 478. A few weeks ago the M. J. Breitenbach Company of New York circulated among physicians what purports to be an abstract of this report, claiming that "this report alone would suffice to establish pepto-mangan at once as the foremost hematinic known." Physicians, of course, realize that no other proprietary firm ever had so many "original" "write-ups" inserted in the reading pages of medical journals. It may fairly be said that the medical press has been subsidized by the Breitenbach Company to an extent equaled by no other. So in this instance, medical journals have recently been publishing as "reading notices," or as "publishers'" notes," extracts from the company's pamphlet, especially made for the purpose. The Breitenbach Company having, as quoted, staked so much on the results of the commission's use of "pepto-mangan (Gude)," it becomes a matter of medical importance to look into the facts.

The commission treated, so far as covered in this report, 5490 cases of uncinariasis. Of these it presented in detail the clinical histories of 61 cases. In

18 of these 61 cases the commission administered "pepto-mangan (Gude)," which had been donated by the Breitenbach Company. Of these 18 cases the Breitenbach Company says they "were selected on account of their extreme severity, and thus these cases represent the most crucial test to which any iron preparation can be subjected." Further, we are told: "The results obtained point so distinctly to the supremacy of 'pepto-mangan (Gude),' etc., and 'the report may be regarded as a supreme test' and 'as a triumph for pepto-mangan (Gude).'"

With these claims before us it is more than interesting to analyze the reports of the cases from which they are drawn. In 14 of the 18 "pepto-mangan (Gude)" cases that combination was the only iron preparation used; in the remaining 4 Blaud's pill was used during the latter part of treatment. In the other 43 cases (not mentioned in the Breitenbach pamphlet) the iron was administered in the form of Vallet's mass or Blaud's pill, either or both, with the exception of two cases in which no iron was used. In closing its report the commission notes that iron alone without expulsion of the uncinaria is of little benefit and plays a part secondary to anthelmintics. Therefore, in this "supreme test," the relative value of the hematinic used will be largely determined by the time consumed in relieving the symptomatic anemia after removal of the parasitic cause.

Analyzing the 61 cases the following facts come to light, and it should here be noted that nothing in the original report indicates the "extreme severity" of the "pepto-mangan (Gude)" cases as compared with those in which other iron preparations were used. For the present purpose it is sufficient to compare the "pepto-mangan (Gude)" cases with those in which Blaud's pill alone was used:

	Cases.	Av. time of treatment. Days.
"Pepto-mangan (Gude)" cases reported cured	9	79.77
"Pepto-mangan (Gude)" cases reported cured in which Blaud's pill was used in latter part of treatment	5	74.8
Blaud's pill cases reported cured	26	49

Two "pepto-mangan (Gude)" cases were reported "improved" in an average treatment time of 87 days, while the other two were fatal cases. This "supreme test" then shows that the patients treated with Blaud's pill recovered from the anemia in less than two-thirds of the time required when "pepto-mangan (Gude)" was used. On this point the commission itself says (page 119): "Thus it is quite difficult to accurately judge the comparative value of different iron preparations, yet it is noticed, even by some patients, that Blaud's pill gave more rapid results."

In the face of these clinical facts and of this plain declaration from the commission, the physician may well ask: Why in the name of prudence did the Breitenbach Company circulate a pamphlet and advertise in medical journals a claim that "this report alone would suffice to establish pepto-mangan at once as the foremost hematinic known"? As the report actually draws a contrary lesson, the course of the company can only be explained either as due to its exaggerated confidence in the credulity of physicians or to its own neglect to read the report before abstracting it. Which hypothesis is most probable? Physicians who have read the "write-ups" of "pepto-mangan (Gude)" appearing in nearly all the medical journals of the country will have no difficulty in answeriug this question. Lastly, what of the honesty of circulating amoug medical men so misleading a document?—*Journal A. M. A.*, September 23, 1905.

PHARMACOLOGY.

AIBONITO, P. R., September, 18, 1905.

To the Editor:—It has come to our notice that the report of this commission, published December 1, 1904, is being used by the manufacturers of Gude's pepto-mangan to advertise their preparation of iron. As this advertisement puts us in a very unenviable and erroneous light before the medical profession generally, will you be kind enough to publish the following statement?

The advertisement in question purports to be a review of this report and, having attracted attention, proceeds by erroneous deductions and half-quotations in such a manner that one might believe that the commission indorsed their preparation of iron as the best hematic in the treatment of the anemia of uncinariasis.

As a matter of fact, the report (page 119) clearly states that we found the carbonate of iron to give the best results. Our report, on account of the limited edition, has never reached the majority of our professional brethren, and for this reason we quote the portion referred to:

"It will be noticed that slight cases readily recover without iron, and here the difference in the tables is more marked, while there is less difference among the marked cases in proportion to their number. In other words, the more resistant cases of all grades received iron, but even then did not generally recover as rapidly as those less rebellious without, for while ferruginous preparations seem to act readily in some instances, still, in the majority, its effect was not marked. The rapidity of cure is due, apparently, more to the personal equation of the patient and the rapidity with which the parasites are expelled, than to the amount of reconstructive treatment. Thus it is quite difficult accurately to judge the comparative value of different iron preparations, yet it was noticed, even by some patients, that Blaud's pills gave more rapid results."

We do not believe that a perusal of the histories of the eighteen cases which the advertisement quotes demonstrates the superiority of pepto-mangan (Gude), as these patients recovered more slowly than others of the same type who took Blaud's pills or Vallet's mass. In fact, on account of this slow recovery the carbonate of iron was substituted for pepto-mangan in five of the eighteen cases (Cases 8, 9, 10, 13 and 15). We ceased to use pepto-mangan and gave none to the later cases.

To support our statement we invite attention to the following figures taken from those given in the very report which the M. J. Breitenbach Co. cite as proving the superiority of their preparation:

There are sixty-one cases reported in full with

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[1]This editorial brought from the Breitenbach Company a letter addressed to the *Journal of the American Medical Association*, which is worth quoting in this connection and also in connection with the correspondence with the *Medical Record*, which follows. The italics are ours.

"It seems to us, in looking over the issue of your journal for February 11th, that the editorial department of your publication is quite at variance with your advertising pages. A short while ago we sent you a new electrotype stating that pepto-mangan was particularly applicable to the anemia of uncinariasis, and produced positive results if administered after proper treatment for the expulsion of the parasite. We did not make this statement until we had had conclusive proof from tests made by eminent men in the profession that such was the case. We make no haphazard statements ourselves. *It is evident that either your editors do not read the advertising pages of your journal, or they wish to make a direct slap at one of their advertisers, and we can hardly see how it is to be any advantage for us to place an advertisement with you, if in the editorial pages you are going to directly contradict our statement.* We refer to your editorial on page 478, in which you make the statement, 'The day of *blind reliance on iron, quinin and tonics in general in the treatment of anemic conditions in tropical countries is past, never to return,*' and this in the face of our advertisement for which we pay you. It looks to us a little like taking our money and in turn going out of your way to slap us in the face, for had that paragraph been omitted from your editorial, we think you will agree with us that the value of the article would in no way have been lessened, and we should feel in a very different frame of mind than we do now. Had it been written by one of your contributors we would have let the statement pass, and set it down to ignorance, but coming as it does from your editors, *who should be thoroughly conversant with the advertisements you carry*, we cannot but feel that it is *very unfriendly* toward us.

"We shall be glad to hear from you on the subject."

complete blood records and clinical histories. In eighteen of them pepto-mangan was used save toward the termination of five of them, when Blaud's pills were substituted. In eleven cases Vallet's mass was used, supplemented by Blaud's pills. In twenty-nine cases Blaud's pills were used exclusively. Three cases have no bearing on the subject.

Reconstructive Treatment.	Pepto-Mangan (Gude).	Blaud's Pills.	Vallet's Mass.
Average hemoglobin before treatment, per cent.	20.7	26.5	18.1
Average number of days under treatment	80.7	47.9	69.8
Average gain in hemoglobin during treatment, per cent.....	62.3	66.8	66.6

But to bring out the difference between these drugs more vividly eighteen pairs of cases of like type have been tabulated, whose initial hemoglobins absolutely or nearly correspond. One of each pair was treated by Blaud's pills, the other by pepto-mangan. The demonstration is all the more potent in that both drugs were used in their true role as blood regenerators, in conjunction with thymol administered to both alike.

Case, No.	Form of Iron Used.	Hemoglobin Before Treatment.	Days Under Treatment.	Total Gain Hemoglobin.
1.	Pepto-mangan	33	100	68
56.	Blaud's pills..	33	56	70
3.	Pepto-mangan	25	71	78
52.	Blaud's pills..	25	36	75
4.	Pepto-mangan	28	97	72
50.	Blaud's pills..	27	36	75
6.	Pepto-mangan	22	101	48
25.	Blaud's pills..	22	43	78
7.	Pepto-mangan	10	63	93
28.	Blaud's pills..	11	71	90
8.	Pepto-mangan	34	101	44
46.	Blaud's pills..	35	36	69
9.	Pepto-mangan	20	99	83
43.	Blaud's pills..	20	50	81
10.	Pepto-mangan	20	92	84
51.	Blaud's pills..	20	50	63
11.	Pepto-mangan	32	95	48
47.	Blaud's pills..	32	36	70
12.	Pepto-mangan	27	80	3
53.	Blaud's pills..	25	50	84
13.	Pepto-mangan	14	94	95
23.	Blaud's pills..	14	50	66
14.	Pepto-mangan	16	93	85
45.	Blaud's pills..	16	57	46
15.	Pepto-mangan	11	84	99
22.	Blaud's pills..	12	71	92
16.	Pepto-mangan	20	92	70
60.	Blaud's pills..	19	98	71
17.	Pepto-mangan	9	36	6
21.	Blaud's pills..	13	71	89
18.	Pepto-mangan	16	98	66
59.	Blaud's pills..	18	53	57
19.	Pepto-mangan	28	49	75
42.	Blaud's pills..	31	57	3
33.	Pepto-mangan	9	8	6
20.	Blaud's pills..	22	27	48

That is to say, of eighteen pairs of almost identical cases, the initial average of hemoglobin percentage in the cases treated by Blaud's pills was 21.9; in those treated by pepto-mangan (Gude), 20.7; the average number of days under treatment was 48.7 in the cases treated by Blaud's pills; in those treated by pepto-mangan (Gude), 80.7; the average gain in hemoglobin under Blaud's pills was 68.1 per cent; under pepto-mangan (Gude), 62.3 per cent.

We tried to use a variety of iron preparations and were offered the pepto-manganates made by this company. We had no idea that this preparation differed essentially from any other pepto-manganate of iron, and it certainly may not, but had we considered the pepto-manganates of superior value as blood regenerators we would have said so. As it is, we have said the contrary and wrote this company to that effect at the time we became convinced of it.

This commission does not wish to be understood to consider the use of reconstructive treatment as a necessity in the anemia of uncinariasis. Such an idea is all the more absurd in view of the fact that in the 12,000 cases treated under its direction since June 1, 1905, comparatively little reconstructive treatment has been used, many cases receiving none at all. As our experience with this disease widens, our opinion is strengthened that anthelmintic treatment is not only curative, but promptly so, in the vast majority of cases, iron or no iron. Thanking you in advance for the use of your columns,

We are, very truly yours,
BAILEY K. ASHFORD,
W. W. KING,
PEDRO GUTIERREZ YGARAVIDEZ,
Members of the Commission.

Journal A. M. A., Oct. 7, 1905.

THE MEDICAL RECORD AND THE PROPAGANDA AGAINST NOSTRUMS.

A little while ago the New York *Medical Record* contained a two-page advertisement of the Etna Chemical Company, which evidently was intended to counteract the effect of the report of the Council on Pharmacy and Chemistry which showed phenalgin to be a simple acetanilid mixture. Still more recently the same journal contained another two-page advertisement, one of which was occupied with a cartoon intended to cast ridicule on the efforts being made against the nostrum evil. Since these advertisements appeared in a scientific medical journal and a journal that is supposed to represent intelligent physicians, one might charitably suppose that they were admitted through lack of supervision. Such does not appear to be the case, however.

Under date of September 8th, the editor of the *Journal of the American Medical Association* sent the following letter to the *Medical Record:*

To the Editor: Your issue for last week, September 2d, contains a two-page advertisement of the Etna Chemical Company relating to their preparation, phenalgin. One page is entirely taken up with a cartoon evidently intended to deride the *Journal of the American Medical Association*, the Council on Pharmacy and Chemistry of the American Medical Association, and the propaganda against nostrums. The other page contains what is presumed to be an answer to the official announcement of the Committee on Chemistry regarding its investigation into certain preparations offered to the profession and to the public, especially as it is related to phenalgin. Permit me to quote from the advertisement as it appears on advertising page 21 of the *Record:*

"Recently certain ill-advised persons have attempted to confuse Phenalgin with patent and quack Nostrums, and have so far succeeded that the influence of the *Journal of the American Medical Association* has been brought to bear against our legitimate and ethical business."

"We believe that Commercialism of the rankest kind has dominated this absurd crusade against us. These people may call Phenalgin a mixture, or a compound, or anything that pleases them; it does not in the least change the fact that Phenalgin is just what we have always said it to be."

"We know that doctors who are practicing medicine and prescribing Phenalgin will continue to do so regardless of the reports of alleged analytical chemists whose experience in the sick room is an atom of a myth compared with that of those who are continually using our product."

My object in writing you is to briefly state certain facts solely for the information of your readers.

What the Council on Pharmacy and Chemistry of the American Medical Association is and what its functions are are well known to your readers. While the council has been outlining plans for work, making investigation into various products, it has published but one official report; this was on six preparations, viz.: ammonol, antikamnia, Koehler's headache powders, orangeine, phenalgin and salacetin (sal-codeia-Bell). The report on phenalgin was as follows:

"According to the analysis of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid.	Sodium bicarb.	Ammonium carb.
57	29	10

"Certain packages of phenalgin were purchased which on analysis did not show ammonium carbonate."

The committee signing the report[1] and vouching for its truthfulness consisted of:

J. H. Long, M. S., Sc. D., professor of chemistry in the Northwestern University Medical School and director of its chemical laboratories, the author of "A Text-Book of Physiological Chemistry" and other works on chemistry, and, last year, president of the American Chemical Society;

W. A. Puckner, Ph. G., professor of chemistry in the School of Pharmacy of the University of Illinois, and a contributor of scientific articles to chemical journals;

S. P. Sadtler, Ph. D., professor of chemistry in the Philadelphia College of Pharmacy, author of "A Text-Book on Chemistry," associate editor of the U. S. Dispensatory, and a member of the Committee on Revision of the U. S. Pharmacopeia;

Julius Stieglitz, Ph. D., professor of chemistry in the University of Chicago, a man of wide repute as a chemist, and the author of several works on chemistry; and

H. W. Wiley, M. D., Ph. D., chief of the Bureau of Chemistry of the Department of Agriculture, Washington, D. C.

Besides the above, other chemists assisted in the work, and the following made analyses of phenalgin:

H. M. Gordin, Ph. D. (Berne), professor of chemistry in the School of Pharmacy of the Northwestern University, who has done a large amount of original work, as his contributions to chemical literature will show; and

Max D. Slimmer, B. S. M. A. (University of Chicago), Ph. D. (Berlin), who has several fellowships in chemistry in the University of Chicago, who has done considerable original work in chemistry, and who is recognized as an honorable and capable analytical and consulting chemist.

These are the gentlemen referred to in the advertisement in the *Medical Record* as "alleged analytical chemists."

In a former advertisement the Etna Chemical Company says: "We protest against the association of Phenalgin in that publication" (meaning the *Journal of the American Medical Association*) "with patent medicines and nostrums as an uncalled-for insult to a reputable American Manufacturing Chemical Industry."

In this statement, the Etna Chemical Company gives physicians the right to ask whether it is "reputable" to inveigle them into prescribing a simple acetanilid mixture under the supposition that it is a definite synthetic chemical substance and to charge a dollar an ounce for a preparation the ingredients of which cost less than five cents.

There is, however, one assertion made in the advertisement which, I think, is well taken. The preparation is certainly not now a "secret remedy," for the Council on Pharmacy and Chemistry has cleared up all doubts as to the composition of "ammoniated-phenylacetamide."

Since you did not see fit to publish, or mention, the report referred to above, but have allowed your advertising pages to be used to slur the Council on Pharmacy and Chemistry of the American Medical Association, as well as the *Journal of the American Medical Association*, I think it only fair to your readers that they be informed of the facts in the case, as far as they refer to phenalgin. I, therefore, ask that you kindly publish this.

To the above the editor of the *Medical Record* replied under date of September 12th:

"It has always been the aim of the editor of the *Medical Record* to keep the editorial and advertising pages of the journal entirely distinct, and in continuing that policy I am forced regretfully to return your letter replying to an advertisement in the issue of September 2d. If there should at any time be anything in the reading pages of the *Medical Record* relating to you or the Association whose interests you guard so well, to which you might take exception, I promise you the opportunity to reply fully and freely; but I am not responsible for what appears in the advertising pages, and cannot open the correspondence department to letters in commendation or condemnation of anything appearing in that part of the journal. I regret the seeming discourtesy to you, but you surely can see to what abuses it might lead were correspondents permitted to discuss in the reading pages the statements made by advertisers.

THOMAS L. STEDMAN.

"P. S.—If you publish this letter in your own journal or elsewhere, I trust you will, in justice to the *Medical Record* and to me, publish also this letter giving my reason for refusing you the hospitality of our columns.

"T. L. S."

We are very glad to know that "the editorial and advertising pages of" the *Medical Record* are "entirely distinct." Since antikamnia, ammonal, phenalgin and salacetin, in the form of sal-codeia-Bell, each occupies from a half to a page in the *Record*, some physicians were unkind enough to insinuate that this was the reason the editor totally ignored the report which exposed these preparations. Dr. Stedman's letter shows that this could not be, since the editorial and advertising departments are "entirely distinct."—*Journal A. M. A.*, September 23, 1905.

[1] *Journal A. M. A.*, June 3, 1905, p. 1791.

HERZSTEIN LECTURES IN THE UNIVERSITY OF CALIFORNIA FOR 1905.

Special Chemical Problems Related to Practical Medicine.

Synopsis furnished to the JOURNAL by the lecturer.

LECTURE I.

The Toxic Agent in Gastro-Intestinal Autointoxication.

By ALONZO ENGLEBERT TAYLOR.

Gastro-intestinal autointoxication must be separated from exogenous intoxications, especially from decomposed food. It is to be distinguished from the gastro-intestinal infections, for which we assume that they cause disease by the elaboration of specific toxic substances. That gastro-intestinal as well as the systemic infections do entrain real autointoxications by disturbing the natural progression of metabolism, cannot be disputed. Gastro-intestinal autointoxication ought to be separated from indigestion, dyspepsia, gastritis, and enteritis. For these diseases still more than for the specific infections is it certain that autointoxications may constitute a fraction of the morbid consequences.

By gastro-intestinal autointoxication we understand therefore an intoxication that arises in the course of the digestion of normal food, and independent of any exogenous intoxication, of every known exogenous infection, and of enteritis except such as may be *sui generis*. The hypothetical agent must be a substance originated withiu the alimentary tract. It cannot be denied that an autointoxication may result from every alimentary infection and enteritis, since the diseased tissues may do their work improperly. But in any event it would be secondary and not the primary cause of the disease.

A discussion of the hypothetical agent in gastro-intestinal autointoxication in the strict sense may be divided into five headings—Digestive Fluids and Secretions; Normal Products of Digestion; Abnormal Products of Digestion; Substances Formed Normally From Food by Bacteria Within the Alimentary Tract; and Abnormal Products of Bacterial Disintegration of normal food.

Intoxication by Resorption of the Digestive Juices. The digestive enzymes and juices have a certain toxicity independent of their salts and reaction. It is by some assumed that these substances are in normal life resorbed and rendered harmless by some process of distoxication. It was assumed that the postulated distoxication might become disturbed and an autointoxication result. For the assumption that the ferments are resorbed from the alimentary tract, there is no foundation. If the circulating ferments of the body are to be regarded as derived from the digestive glands, it is more natural to assume that they have passed into the circulation directly from the glands than to assume a secondary resorption from the lumen of the tract. Ferments are colloids and as such unadapted to absorption. The pepsin and curdling ferment are digested by the trypsin; the salivary ferments are digested by the pepsin. These ferments are furthermore, with those of the pancreas and succus entericus, exposed to putrefaction by bacteria, to which they are very sensitive. There is not a single reported experimental fact, exact observation or clinical fact that is explained by the assumption of the resorption and non-distoxication of the digestive juices.

The Products of Normal Digestion. Some of these are toxic. The albumoses and peptones produce fever, leukocytosis, alterations in the coagulability of the blood, hemolysis and cellular degenerations of mild degree. In the severe degenerative diseases, as acute yellow atrophy of the liver, acute pancreatitis and septic exudations, these proteins may be found in the blood plasma. There is no experimental work or clinical investigation tending to show that these

lower proteins are responsible for any gastro-intestinal autointoxication.

The amido acids are quite innocuous. Amido nitrogen is found in all organs and in the circulation. In conditions attended with excesses of cellular degeneration, as in acute yellow atrophy of the liver, large quantities of these substances have been found in the blood and the tissues. There are no reported analyses tending to show that in connection with gastro-intestinal autointoxications the content of amido nitrogen in the blood or urine is increased.

Theoretically such a modus of autointoxication would be possible if the products of the digestion of protein were not reconverted into higher protein during the act of resorbtion. If because of ulceration or for any reason the protein were absorbed unchanged, or the products of digestion absorbed without reversion, an intoxication of the liver might ensue. Such a conditon would be comparable to the intoxication produced by the anastomosis of the portal vein and the inferior cava, so that the portal blood is poured into the general circulation without having been subjected to the action of the liver. There is no data tending to show that this condition of malabsorption ever occurs.

The products of the digestion of fats must also be held guiltless. Glycerine is somewhat toxic. There is normally no glycerine in the urine. Since the fats are found resynthesized in the retro-peritoneal lymph vessels, it is apparent that the glycerine split off during the digestion has been again used in the recombination. The fatty acids themselves cannot be a factor, because when administered they are easily absorbed and converted into fats by the addition of glycerine.

The products of the digestion of carbohydrates are entirely innocuous.

Abnormal Products of Digestion. Of qualitative variations in the digestion of protein we know nothing. It is conceivable that in abnormal conditions the products of digestion might suffer some chemical alterations either within the tract or during the process of absorption. We have no facts that indicate that such is the case. There is in the digestion of fats one recognized possibility for an abnormal deviation—the formation of b-oxybutyric and di-acetic acids. There is one group of cases of acetonuria associated with gastro-intestinal symptoms, which may be of gastro-intestinal origin. In connection with the digestion of carbohydrate, it must be borne in mind that a gastro-intestinal oxaluria is theoretically possible, the oxalic acid being derived from glucose.

Substances Formed by Bacteria from Normal Food Within the Alimentary Tract. The material consumed in these operations is not large; over nine-tenths of the food is absorbed in digestion and the larger portion of the remainder is residual in the feces. This is not due to the antiseptic properties of the digestive juices (which are not pronounced), but to the rapidity of the processes of digestion and absorption, and to the brief residence of the residue in the tract. Associated with the bacterial processes is a stimulation of peristalsis.

Do the products of the normal bacterial disintegration of normal food give rise to intoxications? Under conditions of increased virulency upon the part of the bacteria normally present, are not greater quantities of the normal products generated, with the causation of an intoxication? The products of the normal fermentation and putrefaction within the alimentary tract are, so far as we are cognizant of them, the following: From the fermentation of carbohydrates are derived formic, acetic, butyric, proprionic, valerianic, lactic, succinic, and traces of oxalic acids. Apart from oxalic acid, none of these are toxic beyond their acidity. The quantities formed are not large. They are in large part absorbed. Their neutralization and oxidation entrain no metabolic difficulties and we may regard them as innocuous. The same acids could in part, together with oxy-acids, be derived from the bacterial disintegration of the fats. This occurs to but slight extent, since fatty acids are very difficult of fermentation. The putrefaction of protein yields the derivatives of the benzol nucleus—indol, skatol, phenol, and cresol; amido-acids, such as leucin, tyrosin, asparaginic and glutamic acids; hexone bases; sulphurous bodies such as mercaptan, hydrogen disulphide, and other unclassified bodies containing neutral sulphur. Indol, skatol, phenol and cresol are in the quantities concerned quite non-toxic. The amido-acids are quite harmless; they are absorbed and either elaborated or oxidized. The sulphur bodies are of unknown importance. Hydrogen disulphide is toxic, but the quantities concerned are so trivial that the body can have no difficulty in burning them. The carbon dioxide, nitrogen, acetone, alcohol, methane, and other hydrocarbon gases that exist in greater or lesser traces are also not to be convicted of any toxic effects.

Thus the sum total of our present knowledge is that in the normal bacterial disintegration of normal food-stuffs no known toxic substance is formed. Are these bacterial processes some times so excessive as to cause a direct intoxication? In infantile entrocolitis the organic acids may be produced in excessive quantities. Possibly these are responsible for some of the acid intoxications observed in children. We do not know whether these fatty acids cause acidosis, or whether it is always due to the acids of the acetone group. Intoxication with hydrogen disulphide occurs certainly, though rarely. Large quantities of lactic acid are some times found in the stomach; indeed there are paroxysmal attacks accompanied by excessive formation of this acid. There is no evidence that it is absorbed, since the lactic acid met with in the urine is optically active, while that obtained from the stomach is inactive.

In many conditions of the alimentary tract the benzol derivatives are increased in the urine. This should be interpreted to mean nothing more than that the bacterial processes in the intestine are increased; it is not in itself a sign of autointoxication. If the pancreatic duct be ligated, the conjugated sulphates will sink to almost nothing; the bacteria act not on the protein but most energetically upon the products of pancreatic digestion. Indol and skatol are products of the action of bacteria on tryptophan, an end product of tryptic digestion. They are for the most part absorbed, eliminated paired with sulphuric and to some extent with glycuronic acid and in small part as oxyacids. Skatol-carboxylic acid is in part eliminated as a salt, in part oxidized. The phenol and cresol are derived from tyrosin. They are absorbed, in large part oxidized to hyprochinon and pyrocatechin (which pair with sulphuric acid); the rest is eliminated paired with sulphuric and glycuronic acid. Para-oxy-phenyl-acetic and propionic acids, intermediary products in the derivation of phenol from tyrosin, appear as salts in the urine, but bear no constant relation to either the tyrosin or the phenol. Hippuric acid, apart from that obtained from the vegetable diet, is probably derived from phenyl-alanin. The conjugation of the aromatic bodies ocurs largely in the liver, to some extent in the lungs and kidneys; the oxidations occur in large part in the liver.

These substances are influenced by the diet. Deficiency in intestinal absorption would tend to an increase in the products of putrefaction. Animal protein is more prone to putrefaction than vegetable protein. There are variations within the molecule; the different amido-acids are present in different proteins in different amounts. Thus gelatine is poor in tyrosin, casein rich in it; putrefaction of gelatine would therefore yield little phenol and cresol, that of casein much. Future investigation must give attention to this aspect of the question.

Intestinal putrefaction is dependent on the diet apart from protein. The ingestion of carbohydrate tends to reduce the putrefactive processes, presumably by virtue of the acids of fermentation. In starvation the putrefaction is low.

There is normally little putrefaction but much

fermentation in the small intestine. Obstruction of the colon leads to little increase in putrefaction; obstruction of the small intestine leads to a morbid increase; diarrhea usually leads to a diminution of putrefaction, but in typhoid fever, dysentery and intestinal tuberculosis we often observe an increase. There is no relation between gastric acidity and intestinal putrefaction; the hydrochloric acid is too distant from the colon. There is no constant relation between intestinal putrefaction and the biliary secretion; there is an antiseptic tendency in the bile, but it is not pronounced.

The flora of the alimentary tract is of great importance. Certain of the actively putrefying anerobic bacteria produce no indol or skatol but much phenol; the colon bacillus is au active producer of indol. Variations in the flora may be of determining influence in the quantitative relations of the different aromatic substances.

There is no constant relation between the protein ration and the output of aromatic substances. The indol and skatol do not bear a constant relation; the same is true for the phenol and cresol, for the indol and phenol. No one single aromatic substance bears a constant relation to the total conjugated sulphates; this is to be emphasized for indican. One cannot judge of the total paired sulphates from the indican; one may see high indicanuria with a low total, or high values for the total with but traces of indican. There is no constant relation between the aromatic substances and the bacterial count of the feces. The least faulty method of determining the extent of intestinal putrefaction is by the estimation of the conjugated sulphates. Nevertheless this may yield a totally false interpretation. One sees individuals in perfect health who eliminate large quantities of aromatic substances.

What is then the exact meaning of an increase in benzol derivatives in the urine? A normal output need not indicate a normal state of intestinal putrefaction; an excessive output indicates that more protein than usual is undergoing putrefaction in the alimentary tract. This may be due simply to some individual idiosyncrasy, to peculiarities in the diet, to a heightened virulence of the bacterial flora, to the presence of a particular bacterium, or to the retention of the food in the tract. Does it indicate an intoxication? No. A certain amount of intestinal putrefaction is normal; an increase may be entirely accidental or coincidental. A constant relation between putrefaction and intoxication could hold only if the aromatic bodies were in themselves toxic, if the process of oxidation and pairiug were deleterious to the body, or if the formation of the aromatic substances bore a constant relation to the elaboration of some unknown poison and to the symptoms. There is no evidence that the substances are themselves toxic to any degree, or that the conjugation places any burden upon the body. We have no method of estimating the quanity of aromatic bodies that are eliminated with glycuronic acid. We have further no feasible method of estimating the oxidized aromatic substances. There is in clinical observations no parallelism between symptoms and conjugated sulphates in the urine, either in degree or in the onset and disappearance. What is all along actually assumed is that other substances, poisons, are produced by the putrefaction; and as the degree of putrefaction may be often approximately measured by the aromatic substances, the degree of the hypothetical unknown poisoning is also so measured.

This is misleading: we do not know how much of these substances is absorbed from the intestine, how much the particular flora tends to the formation of aromatic bodies, to what extent the diet furnishes tyrosin and tryptophan. Thus chemical and physiological considerations lead to the same conclusion reached by careful clinical observations—that the estimation of indican is quite worthless and the estimation of the aromatic sulphates unreliable for the purpose of determining the relative or absolute extent of intestinal putrefaction.

Abnormal Products. When proteins are subjected to putrefaction, a large number of alkaloid-like substances are formed, commonly termed ptomains. They include a large number of substances of the fatty series, amines, members of the pyridin nucleus and of the chinolin series. Most of these ptomains are innocuous. None of them except the simple amines have ever been found in the urine or feces of normal individuals or of those suffering from any diseases except cholera, idiopathic cystimuria (occasionally dysentery, enteritis and obstruction) and true ptomain poisoning due to the ingestion of decomposed protein. Time is required for the elaboration of ptomains, particularly the toxic ones; in general no poisonous bases are formed in less than ten days; in some of the well-studied cases of ptomain poisoning due to the ingestion of decomposed food, the analytically incriminated foods have been however but a few days old. We know of many undoubted instances of ptomain poisoning due to the ingestion of decomposed food. We possess no information that in the so-called gastro-intestinal autointoxications (the ingestion of decomposed foods must be excluded) ptomains have ever been found. Since a certain decomposition of food occurs within the alimentary tract and the degree of this decomposition may be increased under certain conditions, we are driven to the conclusion either (a) that there is not time for these changes to proceed to the stage of ptomain formation, (b) the ptomains are decomposed in the system or (c) the decomposition of protein is different in the intestine than outside the body. The last conjecture may be dismissed. We are left to choose between the other alternatives: either ptomains are not formed in the alimentary tract (apart from the known instances in cholera, idiopathic cystinuria, and ocasional cases of dysentery and enteritis) or they are formed and distoxicated. What evidence is there that ptomains are formed and later distoxicated? Iu experimental work ptomains are eliminated in the urine just as in idiopathic cystinuria. For the diagnosis of ptomain poisoning—as for any other poisoning—the presence of the poison must be demonstrated. Such chemical demonstration has, as stated, never been accomplished for the class of cases under discussion. The strict conclusion to be drawn from our present knowledge is that the term "ptomain poisoning" should be confined to instances of intoxication due to the ingestion of decomposed protein and accompanied by the elimination of the poison, and to such instances of decomposition within the tract in which toxic ptomains may be isolated. The presence of cadaverin and putrescin would mean little, for apart from their harmless roles in cystinuria, they are to be found in old digestion experiments, where they are derived by fermentation of lysin and ornithin, and thus they do not necessarily indicate an abnormal bacterial decomposition. The neurine group have been considered responsible for some of the symptoms of Addison's disease, though without chemical demonstration.

Is it permissible to use the therapeutic test in the diagnosis, may the results of the administration of antiseptics be interpreted in aid of a positive diagnosis? Is it possible to reduce the number of intestinal bacteria, to modify the quantity or quality of their chemical products by means of these drugs?

Control must be exercised in the test. The diet must be constant in composition and quantity, since the bacterical count depends in part on this, and it must be sterile. The estimation of the bacteria is of great difficulty. Counting the bacteria in the fresh stools is very difficult and unreliable. Plating and counting the colonies is also unreliable. The method of weighing the bacteria, though difficult, is the least inaccurate of the known methods.

Now before one passes judgment on the action of an antiseptic, one must be certain that its sole action is upon the bacteria. Anything that checks diarrhea will reduce the daily output of bacteria, but may

increase the output of aromatic bodies in the urine. Anything that will promote the percentage or time absorption of protein will reduce the output of bacteria and tend to reduce the elimination of aromatic substances. Thus the output of bacteria is usually low in constipation, though the elimination of aromatic substances may be high. Anything that tends to the desiccation of the stools will tend to reduce the bacterial output; anything that makes the stools watery tends to increase the bacterial output. Above all, the drug should not exert any deleterious action upon the epithelium of the tract.

Now as a concrete fact, is there any work showing that under the proper restrictions of experimentation the bacterial count of the alimentary tract can be reduced by an intestinal antiseptic? No. Usually the result is nil. As a rule the drug does not reach even the lower part of the small intestine, to say nothing of the colon, unaltered. When the dosage of the antispetic is so increased as to make the drug chemically demonstrable in the entire tract, the action on the epithelium is so deleterious as to materially reduce the resorbtion of the food, with the result that conditions for bacterial multiplication are made more favorable and the number is often greatly increased. Between the bacterial count and the amount of elimination of aromatic sulphates in the urine there seems to be absolutely no relationship, nor could such be expected, when they possess different variables. So far as we know to-day diet and the improvement of the acts of digestion are the only known means of controlling the bacterial flora of the alimentary tract.

What reliance may be placed upon the urotoxic coefficient in diagnosis? The toxicity of human urine on injection into rabbits is due in large part to the electrolytes, and depends upon the injection of a hypertonic solution rich in potassium. When these two factors are controlled, there is little toxicity remaining. The toxicity of the organic constituents is very slight. The relative innocuousness of the end products of the human metabolism is shown in the fact, that calculating the dosage from the rabbit, a healthy person could receive without danger the end products of two weeks of metabolism. Now is this urinary toxicity increased in the urine of the cases under discussion? It is not. Whenever the cases have been studied with due care negative results have been secured. This simply means that the urotoxic coefficient may not be used for purposes of diagnosis; it does not mean that no intoxication has taken place because the urine has not increased in toxicity. The possibility of a systemic distoxication is not to be denied, but there must be some objective evidence offered for it, and this has not up to the present been forthcoming.

There are several clinical symptom-complexes in which, though the term ptomain poisoning is improper, there are, even in the absence of any knowledge of the toxicological agent, reasons of fact and analogy that furnish some warrant for the use of the term gastro-intestinal autointoxication. What is needed in these domains is exact investigations.—objective clinical observation and accurate chemical research.

Tetany. The tetanies associated with extirpation of the para-thyroid, intestinal parasites, pregnancy and lactation, acute infections, exogenous intoxications, rachitis, and the so-called epidemic or occupational variety can have no dependence upon the digestive tract. Typical tetany of the severe form occurring in adults in association with gastric dilitation is rare and very fatal. To determine whether the processes in the dilated stomach have gone to the stage of the production of poisons, the gastric contents and urine have been investigated. In a few instances uncharacterized substances have been obtained from the gastric contents that were somewhat toxic to rabbits; in other cases the substances were innocuous. From the urine in a few cases substances have been isolated that gave group reactions of amines but were not toxic on intravenous injection in rabbits. Up to the present therefore a ptomain or other toxic agent has not been demonstrated for tetany. The tetany of children associated with gastro-intestinal symptoms and diseases is often accompanied by acidosis, and an excess of ammonia and of aromatic bodies in the urine. The association with the acidosis is of slight moment, since acidosis is very common in children in subnutrition.

The Alimentary Tract. Commonly regarded as gastro-intestinal intoxications are certain gastro-intestinal attacks associated with cutaneous symptoms. The symptoms are pain, vomiting, often diarrhea, fever, followed by a general erythema, urticaria, or giant odema, possibly by other exanthemata. Desquamation may follow. The symptoms resemble closely intoxication with shell fish in susceptible individuals. Recovery usually follows promptly after gastric and colonic lavage and free purgation. Ptomains or other poisons have never been reported in the contents of the tract or urine. I am acquainted with one case in which a careful search was made with negative results.

Instances of severe violent disturbances in the alimentary tract are observed that bear all the external marks of an intoxication. The attacks consist of sudden vomiting which may be uncontrollable, extreme pain, profuse diarrhea in some cases, and in other spasms of the intestine with meteorism, vertigo, vaso-motor dilatation, shock, local spasms, even convulsions and coma. If it is possible to exclude exogenous intoxication, the assumption of a gastro-intestinal autointoxication is justified even though a chemical investigation (which has apparently never been attempted) should fail to isolate any known poison. The recurrent vomiting of children is not gastro-intestinal in origin, but is probably a symptom of metabolic acidosis.

In connection with subacute obstruction of the stomach or intestine, symptoms suggesting gastro-intestinal autointoxication are sometimes noticed. The differences in the appearances in patients with gastric carcinoma before and after gastro-duodenostomy is usually so striking that one is driven to question whether they are to be explained by the conditions of nutrition and are not due in part to the removal of conditions of decomposition in the stomach. Nevertheless the definite demonstration is wanting, though often attempted.

Constipation. Under constipation is understood that degree of infrequency in the evacuations of the bowels that is accompanied by symptoms which are relieved by an evacuation. This may be twice a day, it may be twice a week. There are individuals who have movements of the bowels twice weekly and remain in perfect health; others have symptoms of constipation if the bowels are not evacuated after each meal. The symptoms are usually removed by evacuation of the rectal and sigmoid cavities. What is the evidence for a chemical intoxication? The diagnosis of autointoxication cannot rest upon an excess of indican or other aromatic bodies in the urine. The elimination of the aromatic bodies bears no constant relation to the presence or absence of constipation; nor does the degree of increase in the aromatic substances in the urine bear any relation to the intensity of the symptoms. As previously stated, indicanuria is not a sign of autointoxication nor does it afford any index of the elimination of other and toxic substances. The urine and feces of cases of constipation have been studied for the presence of ptomains or other poisons without success. The fictitious value of the interpretation of the symptoms of constipation is afforded by the fact that they are at all times more pronounced in women than in men, and particularly marked during the menstrual period. It is also noteworthy that many of the symptoms of constipation are to be observed in association with abdominal and pelvic diseases unaccompanied by constipation. A recent

suggestion is that the evil results of constipation may be due to the non-secretion hy the intestinal mucosa of toxic excrementious substances, whose elimination is assumed to be a function of the intestine. For this hypothesis there is no evidence.

The necessity for caution in the interpretations of symptoms is nowhere more to be noted than in the consideration of the chemico-toxic features of constipation. In constipation there is no regular increase in the amount of benzol derivatives in the urine. There is no constant increase in the number of bacteria in the intestine, rather the converse. In constipation there is no increase in the toxicity of the feces or of the urine. We see women with inflammatory pelvic disease suffer severely from constipation, and later observe that after the removal of the diseased pelvic organs, the same constipation gives no symptoms. The same observation is made in appendicitis. It is the inflammation of the appendix that endows many a case of constipation with the power of producing symptoms. If a constipated colon, dilated with gas, tracts a chronically inflamed appendix, that is not an intoxication, it is not due to the chemical composition of the colonic gases, or to the chemical properties of the products of protein disintegration within the colon; it is a mechanical condition and after the removal of the appendix, such symptoms will usually not result from an ordinary constipation. Our present best knowledge of appendicitis goes to show that the disease is in all its relations and symptoms a bacterial infection, and in nowise an autointoxication, no more so than a septic endocarditis or a cholecystitis. There is no denial of the symptoms of pronounced constipation. But there must be objective investigation of the cause of these symptoms. They cannot be assumed to be chemical, toxic; this must be shown. If we are to assume that a train of symptoms is the result per se of the simple over-retention of the fecal residue of a normal diet in the lower colon, we are utterly at a loss to understand the innumerable instances in which pronounced degrees of such retention give no symptoms. The true cases of intoxication from constipation will probahly be found to be associated with particular articles of food, though this and the exact investigation of the stools are matters for future development. But the current use of the term ptomain poisoning as applied to constipation, is directly contraindicated.

Nervous Dyspepsia. This has been classed as a gastro-intestinal autointoxication. There is no good evidence that an autointoxication is present. It will not do to say that since we know nothing of else it must be an autointoxication; if we do not know of anything else and there is no exact evidence of an intoxication, we simply do not know the cause at all.

Nervous System. For the etiology of a large number of diseases of the nervous system (migraine, neuritis, epilepsy, myasthenia, melancholia, dementia, paralytica, psychoses, and even periodic familial paralysis) gastro-intestinal autointoxication has been invoked. The alleged evidence comprises analogies between these diseases and conditions in the nervous system due to known poisons, the occurrence of constipation and often of an excessive elimination of aromatic substances, the occasional occurrence of acetonuria, the apparent relation of attacks to dietetic errors, the finding in nerve cells of lesions resembling those produced by experimental intoxications, and in the results of the measurement of the toxicity of the urine and in some cases of the perspiration. This evidence is worthless, of exact investigations there are none.

From the urine of persons suffering from diseases of this class (as of all the assumed varieties of gastro-intestinal autointoxication) a large number of alleged poisons have been reported as isolated; analysis of the reports and repetition of the procedures, show the chemical manipulations to have been worthless.

The Anemiæ. The earlier theory of the gastro-intestinal origin of chlorosis is now disproved. For pernicious anemia however a good case has been made out. That a persistent hemolysis is at the bottom of pernicious anemia is shown by the excessive elimination of hemoglobin derivatives in the feces and urine, the siderosis, the experimental work with toulylen-diamine, and the close resemblance to anchylostomae anemia. Extracts of this parasite are known to be hemolytic. Now hemolysis is one of our best studied effects of poisons, and with the demonstration of the occurrence of a severe and persistent hemolysis as the cardinal feature of the disease, a reasonable etiology is established. The earlier work made it probable that the poison was absorbed from the alimentary tract. This has been supported by the experiments with toulylen-diamine as well as by the analogy with the anchylostomæ anemia. Concerning the nature of the hemolytic agent we know nothing. A ptomain it certainly is not. For leukemia we have no exact knowledge.

Asthma Dyspepticum. Is there a dyspnea of toxic gastro-intestinal origin? The experimental foundation for such a conception is to be found in the observation that in dogs with an Eck's fistula the ingestion of bouillon or meat is followed by acute dyspnea. Attacks of acute dyspnea have been described associated with alimentary disturhances and unaccompanied by any lesions in the thoracic organs or kidneys. A close connection exists between the diet and exacerbations in the attacks. No poisons have heen isolated.

Gastro Intestinal Albuminuria. The kidneys are sensitive to poisons. Alhuminuria is common in poisoning by shell fish and decomposed foods. There can be no strong objection to this classification of the instances of albuminuria that occur in well-defined cases of gastro-intestinal diseases. But to go to the extent of the assumption, without exact evidence, that the so-called idiopathic, cyclic and recurrent albuminuriæ rest upon an otherwise unmanifested gastro-intestinal autointoxication, is unjustified.

Excision of the Cervical Portion of the Esophagus.

W. I. Terry, San Francisco (*Journal A. M. A.*, September 30th), reports a case of extirpation at one operation of both submaxillary glands, the remnant of the epiglottis, the hyoid hone, the anterior three-fourths of the esophagus to below the thyroid and the thyroid gland itself in one block of tissue. The posterior one-fourth of the esophagus, being uninvolved in the malignant growth, was left to furnish a mucous covering to the cervical vertebræ, a result which was obtained. The patient had undergone four previous operations, including two laryngofissions and a laryngectomy, which were reported in the *Annals of Surgery*, 1904, vol. 39, p. 968. Convalescence was uninterrupted and the patient was up and about by the fourth day after the operation. At latest report, about three and a half months after the operation, the patient was able to do all sorts of farm work, and had gained in weight, being only three pounds under his normal figure of 150 pounds. The trachea was kept open by a constantly worn silver tube. He masticates his food and swallows it through a funnel-shaped ruhber tube suspended ahove to the opening of the pharynx, the narrowed portion below entering an inch or two into the esophagus.

Medical Advertising.

Classify advertised remedies under four heads: Reputable, doubtful, semi-fake and fake. Therapeutically and ethically considered we should put into the first class only preparations whose constituents are known to the prescriber, and all others would and should be thus banished to the outer darkness of undoubted fakes.—Jackman in *Journal of Medicine and Science.*

A CASE OF PSEUDO-HYPERTROPHIC MUSCULAR DYSTROPHY.*

By LANGLEY PORTER, M. D., San Francisco.

D. M. Aged 7 years, 8 months, was brought to me 6 months ago on account of weakness in the legs, and bronchitis. The mother's account was that the child was apparently healthy at birth, weighed 7 pounds, was breast fed to 16 months, maintained good health during infancy, walked at 16 months, talked at 2½ years. During its first month of walking no weakness in the legs was noticed. The child was then sent away from home to board, in order that the mother might be free to work, but in 6 weeks was

brought back unable to walk, apparently in pain, as he cried incessantly.

After this the child walked very little till it was 4 years of age. The grandmother says that "if there was a match on the floor he would fall over it, and it was a job to get him up again," which is another way of putting Gower's aphorism, "these children fall with ease and rise with difficulty."

It was noticed now that the child kept up its habit of going up stairs on his hands and knees, and at last when the feet were used, he still brought his hands and arms into play for climbing; it was further noticed that his feet tended to be flat. He is subject to frequent severe attacks of bronchitis, and his digestion is easily disturbed; in either event his temperature rises readily, and delirium supervenes with ease; his intelligence is held by his family to be good; it hardly seems up to the 8-year standard, but we have to remember that the child has been babied, and has had no school advantages.

The family history shows nothing that seems to bear on the case. There is a sister in perfect health, another sister died at 7½ months with what seems to have been infantile atrophy, although it possibly may have been a case of the same type as the present, as the mother insists that the infant in its last months never moved arms or legs. The mother has one brother and two sisters in perfect health, the grandmother, one brother whose health was perfect, the health of the father's family it has not been possible to determine. So the usual history of a family disease seems lacking, and, what is unusual, there is a definite history of syphilis in the father. The boy entered my office with a duck-like waddle, highly suggestive of the progressive muscular distrophy with which he is suffering. It only remained to strip him to see his big calves, and when he was put in dorsal decubitus to note the characteristic maneuvers brought into play to aid his rising, to make the diagnosis certain.

On looking at the boy it is obvious the calves are not equal in girth—left 9, right 8¾. The left thigh is a full inch bigger than the right—11¼ and 10¼. The right buttock is bigger by an inch than the left, measured from coccyx to symphysis pubis—9 and 10. The deltoids and triceps both big, give the same measurements on the two sides—6½ and 5¾. The left chest measured just below scapula 10½ inches, a quarter of an inch greater than the right at the same point.

The elliptical posterior border of the enlarged calf muscles show fairly well; they diagnose the condition from the flatter physiological hypertrophy. These muscles are invariably hard in this disease, and most often are even more enlarged than in this boy. It is easy to demonstrate the weakness of the calves by making the patient attempt to tiptoe. You will notice the anterior tibial group is enlarged in this case, although it is more often found atrophied. The vastus externus commonly big, is not markedly so here, and we miss the abrupt bulging its hypertrophy produces just above the knee. The vastus internus seems big. The tensor fascia femoris is out of proportion to the other muscles of the thigh. The gluteii also are very prominent, especially on the right side; the right rectus abdominalis is large, and the lumbar spinal muscles seem large and hypertrophied.

The infra spinatus is big, as it invariably is in this affection; the supra spinatus is also enlarged, although in some cases it may be normal or atrophied. The deltoid, triceps and the supinator longus are hypertrophied; the former two following the rule, and the latter, which is sometimes tiny, is more often as we find it here. The lower half of the pectoralis major is markedly wasted, but it is sometimes entirely absent, which is also true of the latissimus dorsi, which is here wasted. The biceps are in the usual condition of atrophy. The intrinsic hand muscles commonly escape attack, as they seem to have done here, although cases are reported in which these muscles enlarge, especially the abductor indicis. The face and neck usually escape, but the tongue is sometimes enlarged, and also the masseters. I believe that there is a definite but slight enlargement of the masseters in this case.

The muscles attacked, whether hypertrophied or atrophied, are weak, and as the same muscle groups are for the most part in all cases attacked, the

peculiarities of gait and movement following are fairly constant, and so become diagnostic.

The walk, as you see, is duck like; the knee advances before the foot, the leg is swung into extension by its own weight because of the weakness of the knee extensors. The waddle results because the weak flexors of the hip do not enable the foot to clear the ground, so muscles are brought into play that raise the pelvis. If the anterior tibial muscles are weak,

esented at the Polyclinic Gathering, San Francisco.

there is a tendency to toe-drag, and the waddling is exaggerated to meet the added difficulty the foot finds in clearing the ground. Great care is taken to plant the foot squarely and get the center of gravity directly over it, for fear the weak muscles will not respond to the demands of equilibrium, and balance be lost. The gluteii ordinarily counteract the inclination of the body toward leg off the ground. The patient when he comes to a halt stauds with a broad base; when erect, there is usually a marked lumbar lordosis, due to the weakness of the hip extensors, which allow the forward tilt of the pelvis that carries the lower lumbar spines with it, and the upper part of the trunk shifts far back to keep the center of gravity well over the feet. When the boy sits, the lordosis disappears and is replaced by an extensive backward curve, due to the weakness of the hip extensors and the spinal muscles.

This boy has some slight dorsal lateral curvature, which in most cases is more marked, and is due to a combination of muscular weakness with faulty posture.

When the patient rises from the floor one can see the extension of the hips is not extremely difficult, and his chief labor comes in getting the knees into extension; this he achieves by resting the main weight of the body on his hands with legs well behind him, carrying his body backwards with his hands on the floor, his knees extended, one hand is then transferred to the knee, and with the other on the floor he is enabled to get his hips into full extension. Were the extensiou of the hips more difficult, the patient would find it impossible to raise the body in the same way; both hands would be transferred from the floor to the knees, and the body brought into the erect position through shifting the hauds higher and higher towards the hips in two or three efforts. The weight of the head is utilized in this method of rising to aid extension, acting on the body through the arms as a fulcrum; on picking up the patient, the shoulder girdle here rises with ease, due to the weakening of the latissimus dorsi, serratus and pectoralis major.

The knee jerk in this case is slight and difficult to obtain, though it is present, and will remain so as long as the vastus internus has any contractile fibres left. It is not now so marked as when I first saw the boy, and will progressively lessen; the electric reaction is present both to Faradism and galvanism in all the muscles, but in varying degree. Reaction of degeneration is of course uot to be expected, but progressive weakening of response to both constant aud interrupted currents will keep pace with the advancing degeneration of muscle.

The prognosis is bad. Shortening and contraction will come ou in the hypertrophied calves. Talipes equinus will follow, walking become difficult, and finally impossible; the patient will then become bed ridden, extreme lordosis, and contraction of the flexors of the knee and elbow joints may follow. On taking to bed the muscular degeneration rapidly augments, and the patient soon becomes helpless, retaining practically no muscular power except in the hands; death usually supervenes from one of the pulmonary affections, which are grave in these cases, because of the weak respiratory muscles, which, however, never degenerate sufficiently to be a direct cause of death. The better care the patient receives, in the matter of food, fresh air and regulated exercise, the better chance there is for him to live beyond puberty; and if we can carry him past his 15th year, the progress of his disease will probably be slow. Such patients have been known to reach late middle life; unfortunately, however, very few attain their majority, the greater portion dying between 10 and 14 years. Our greatest efforts should be beut toward keeping the patient out of bed; tenotomizing the contracting calf muscles may often prevent the crippling of the patient; if necessary the operation may be repeated any number of times. Girls, when affected, are less severely afflicted than boys, and the course of the disease is slower. Late in the discase the bladder and rectum may become affected, probably from implication of the sphincters.

Gait, movement, manner of rising from floor, with large calves and big infra spinati, and with a rising shoulder girdle and wasting of the latissimus dorsi and lower part of the pectoralis major, seem pathognomonic. Congenital spastic paraplegia has been mistaken, the only points in common seem to be that both diseases affect children, and in both the muscles may be large, with weakness of legs and contraction of calf muscles; but it seems hardly likely that anyone could miss the exaggerated knee jerks and the spasticity of the legs in the paraplegic state, nor overlook the fact that there is no resemblance between the methods of progression or in the manner of rising from the floor in the two conditions. Double congenital hip dislocation gives to the patient a waddle not unlike pseudo-hypertrophy, but there ends the resemblance.

To catalogue some cases in which there is little hypertrophy and divide them from the other forms of idiopathic muscular dystrophy is not always easy. Stress may be laid on the age at the onset, on the enlargement of the calves, and the escape of the face muscles, especially the orbicularis oris and palbebrarum in pseudo-hypertrophy. Again such cases may have to be differentiated from spinal atrophies, diseases of anterior roots, and of peripheral nerves. The myopathies are characterized by gradual onset; affected groups of muscles corresponding to no spinal segment, root or nerve; absence of any fibrillary contraction, absence of R. D. and absence of alterations of sensation.

Exceptiug one case of Gower's where the intermediate substance of the last dorsal segment was found in granular disintegration, no alterations have been found in the nervous system of patients dead from muscular dystrophy. Anterior cornual cells have in every case been found intact. Intra muscular nerves have usually been found intact, but Babes and Ferner have both reported changes in the muscle end-plates. Muscle spindles are unaltered. Some observers report disintegration of the peripheral nerve axis cylinders just where they enter the muscles.

Babes described an endarteritis due to an accumulation of embryonal cells blocking the circulation, impairing the nourishment of the muscles, leading to their atrophy. The muscles themselves are pale and wasted; tne hypertrophied ones in time waste to about normal size; in extreme cases there is not a trace of muscle fibre left. The microscope shows in the moderately affected muscles the muscle fibres diminished in size and number and irregular in shape, transverse striation disappearing, and the muscles becoming granular; fatty and waxy degeneration have also been noted. Muscle fibres removed during life have been found definitely larger than normal.

There is increased neucleated interstitial tissue and fat. Gower's idea is that the muscle degeneration is secondary to the overgrowth of connective tissue, but Erb holds, it seems to me more rationally, that the muscle fibre is primarily at fault. He thinks the process of degeneration begins with hypertrophy of single fibres and increase in their nuclei, which enlarge and subdivide, the new fibres going rapidly on to atrophy, which is followed by increased connective tissue formation and fat deposit. Sufficieut fat determines pseudo-hypertrophy; where no fat is deposited, the fibrous tissue only replaces atrophied muscle fibres, and the muscles become hard and moderately small.

In a third group there is neither fibrosis nor fat deposits, but mere wasting of muscle fibre as instanced in the lower part of the pectoralis major and latissimus dorsi.

No satisfactory explanation seems to exist as to why the certain muscles affected are picked out. Babinski attempts to explain it by the relative time of fetal muscle development; he found in a 5-months' fetus, supinator longus, serratus magnus, latissimus

dorsi, rhomboideus, lower two-thirds of trapezius, orbicularis oris, quadriceps extensor, tibialis anticus, most advanced in development; the deltoid biceps, triceps, infra spinatus, subscapularis and crural somewhat less, the hand muscles very little advanced, and as the muscles catalogued are most often those, in order, attacked in progressive myopathies, it seems plausible to offer this explanation, although it is hardly convincing.

TRYPANOSOME AND ITS RELATION TO CERTAIN DISEASES.*

By HENRY du R. PHELAN, M. D., San Francisco.

AS a result of our present intercourse with tropical countries incidental to colonial expansion, bilharzia, uncinaria, filaria and a host of other parasites with euphonious names and evil designs are threatening us with an invasion. Already many of these unwelcome guests have made their appearance in this country, while others are perhaps on their way to our shores. I may, therefore, be permitted to offer a few remarks about a parasite, certain varieties of which have not yet been reported among us, but whose possible visit would prove a disaster to man and beast. I refer to the trypanosome.

These, as you all know, are flagellate infusoria, whose organs of locomotion are long contractile filaments. There are numerous varieties of trypanosomes differing slightly in their morphological aspect and to a greater degree in their pathogenic properties. In a general way a trypanosome may be described as a fusiform body, a transverse section of which presents the appearance of a razor blade terminating in an undulating membrane. Within the body there is a nucleus, and at its anterior extremity a corpuscle called the cariosome, which is the starting point of the flagellum. The flagellum follows the free border of the undulating membrane, which it re-enforces, and projects beyond it. The trypanosomes multiply both by the formation of ameboid bodies which segment and by the longitudinal or transverse division of the adult parasites.

The mode of transmission of the various trypanosomes is as yet undetermined, save in the case of the *Trypanosoma Nagana*, which is transmitted by the bite of the *Glossina Morsitans* and of the *Trypanosoma Gambiense Castellanii*, which is transmitted by the *Glossina Palpalis* or tsésé fly. This fly appears to be a mere carrier of the parasite whose usual habitat is the blood and cerebro-spinal fluid of its victims.

The varieties of trypanosome so far known are the following: Trypanosome of birds, discovered by Weld, who found it in the blood and bone marrow of the owl, etc. Trypanosome of frogs, studied by Gruby, Mayer, etc., of which there are several varieties. Trypanosome of fish, discovered by Valentin. Trypanosome of the rat, or Lewisii, discovered by Gros and Chaussat and studied by Lewis. Trypanosome of the rabbit and guinea pig, observed by Joly and Nabias of Bordeaux. Trypanosome of Dourine, discovered by Rouget, at Constantine, in Algeria. Trypanosome of Surra, discovered by Griffith Evans and studied by Lewis, who identified it with the trypanosome of the rat, and by a number of Americans in recent times. This trypanosome is of special interest to us in view of the fact that it made an invasion in the Philippine islands at the close of the period of active hostilities, and just before the advent of the epidemic of Asiatic cholera of 1902. While war and cholera decimated the native population in a frightful manner, the trypanosome of Surra killed off 90% of their horses and cattle, causing thereby additional distress to the already over-afflicted Filipinos.

The epidemic of Surra referred to, originating in India, did not limit its ravages to the Philippines alone, but, crossing the broad Indian ocean and the equator, it invaded the Island of Mauritius, where an equal mortality of cattle signaled its arrival. The mode of transmission of the trypanosome of Surra has not been determined as yet. The *Glossina Morsitans*, the carrier of the *Trypanosoma Nagana*, being unknown in the Philippines and Mauritius.

Trypanosoma Nagana or *Brucei* is of equal importance with that of Surra, with which it is identified in many respects, though its mode of transmission is by a different channel. Its size averages 15 microns, and unlike the trypanosome of Surra, its movements are slow and wriggling, while those of the Surra trypanosome are rapid and straight. Both are fatal to cattle, and both have caused extensive ravages. While Surra has been reported in India, the Philippines and Mauritius, Nagana is found only in certain parts of equatorial Africa. Exceedingly virulent, the *Trypanosoma Nagana* readily destroys horses, donkeys and dogs, while certain indigenous animals, such as the zebra and the zebroid, a cross between a zebra and a horse, are immune to it. The mode of transmission of the *Trypanosoma Nagana* is through the Tsetse fly or *Glossina Morsitans*, which acts as a mere carrier, though recent investigations may show a metamorphosis of the parasite in the body of this fly.

The *Glossina Morsitans* is somewhat larger than an ordinary house fly, being 9½ mm. long. It is yellowish in color, and is armed with a sting longer than its head. The thorax is of a reddish gray color, presenting four dark brown stripes. The abdomen is yellowish, and the border of each segment is of a dark brown color. This fly abounds in those regions where Nagana exists. The destruction of the breeding places of this pest and of the fly itself is the only efficacious measure so far known against the ravages of Nagana.

Trypanosoma El Massiani, found in South America, causing the Mal de Caderas. Its mode of transmission is still undetermined.

Trypanosoma Gambiense Castellanii is of far more importance than those of Surra and Nagana, being the cause of sleeping sickness, the ravages of which are very extensive in tropical Africa. In 1903, I had the good fortune of meeting Castellani, upon his return from Africa, where he had been sent to study the sleeping sickness among the native tribes so affected. It has also been my good fortune to have listened to a lecture delivered by him on the object and results of his expedition which may be briefly condensed into the following words:

In November, 1902, Castellani found a trypanosome in the blood of a negro in Uganda, who was suffering from the sleeping sickness. In March, 1903, he discovered the parasite both in the blood and in the cerebro-spinal fluid. He then made a series of examinations of the cerebro-spinal fluid, and out of 34 cases examined, he found the trypanosome in 20. He infers that this parasite is the cause of sleeping sickness.

Bruce confirmed Castellani's discovery, and found the trypanosome in all of the 38 cases which he examined, and he also found the *Filaria Perstans* in certain cases of sleeping sickness. Some of the conclusions arrived at by Bruce are that neither natives nor Europeans are immune; that 100% of the victims of sleeping sickness die; that the lower animals are not a factor in the spread of the disease to man; that the carrier of the human trypanosome is the *Glossina Palpalis* or Tsetse fly alone; and that all stages of development of the trypanosome take place in the human body.

Christy, who also studied the sleeping sickness, found the trypanosome in the cerebro-spinal fluid of 104 patients. He concludes that in many cases of sleeping sickness the trypanosome is never found in the cerebro-spinal fluid, or only toward the end of the disease; that it is rare to find a large number in the cerebro-spinal fluid; that the parasite may come and go in the cerebro-spinal fluid and in the blood; that enormous numbers may be in the blood and none in the cerebro-spinal fluid.

* Read before the Medical Alumni Association of the University of California, July, 1905.

In this connection I may add that I have had the advantage of observing the march of the disease in three Congo negroes, who, after displaying the usual symptoms noted in such cases, quietly slept themselves to death. Brumpt, in Paris, experimenting on monkeys, succeeded in reproducing the disease in them. While interesting in that they demonstrate the relation between the trypanosome Castellanii and sleeping sickness, these experiments have so far failed to lead to the discovery of any remedy for the disease.

THE PATHOLOGY AND TREATMENT OF MORPHINISM.*

By C. L. CASE, M. D., Oakland.

VERY little if any improvement in the treatment of the narcotic drug addictions has been made during the last half century until within the last few years. The treatment has been practically the same all these years, and has been equally unsuccessful and unchanging.

The teachings of Burkhart have to a great extent moulded professional opinion on this subject, and his gradual reduction method has had the endorsement of most medical writers. This has evidently been given upon theoretical grounds, and not because of success attending its application. This tapering off method appeals to the preconceived notions of both the physician and his patient, but as these notions were based upon a false conception of what was really to be accomplished, those holding them were doomed to disappointment. Treatment by this method has been almost universally a failure. The long siege of almost intolerable suffering which it involves so exhausts the patient, both physically and mentally, that by the time the drug is all withdrawn the patient has no ability to resist the slightest pain, and is so thoroughly exhausted and discouraged that he will return to the use of the drug at the first opportunity. Failure to cure patients of this class by this irrational method has led a large portion of the profession to regard these wretched sufferers as hopelessly incurable, or as wilfully abandoned to a loathsome habit which they continued merely because they preferred to do so .

Another method which has been advocated by the more radical members of the profession was that of Levinstein. In this, without previous preparatory treatment, the opiate was discontinued at once, and when the vital forces began to fail, an effort was made to support them with alcohol and other such stimulants, with a final resort to morphine if the symptoms became too alarming. Both death and dementia have been recorded as the result of this inhumane undertaking.

The third, and by far the best of the older methods, was the rapid reduction or "Quick mode" of Erlenmeyer. In this method the drug was reduced the first day to about one-third the usual quantity, and on each succeeding day the dosage was reduced until zero was reached by the fifth to the tenth day.

All of these modes of treatment were based upon the idea that the drug in the system was the first and principal thing to be contended with; in fact, that it was the sum total of the pathology. No treatment of any kind was given to prepare the patient for the withdrawal, none was thought to be necessary, but after the drug was withdrawn then the complications that arose were treated by various remedies, though in most instances these complications were so numerous and severe as to almost, if not completely, exhaust the patient, and often to force a resumption of the use of the drug. Among the more severe complications that occurred after the withdrawal of the drug by either of these methods may be enumerated, intestinal colic, nausea, vomiting, diarrhea, frequently assuming a dysenteric type and often proving uncontrollable without a return to opiates; rapid, labored, inefficient or irregular heart action, collapse (sometimes proving fatal), extreme prostration, cold, clammy sweats accompanied by rigors, involuntary muscular contractions, cramps, hysteria of the most marked type. coryza, aching of the back, limbs and joints, extreme restlessness, persistent insomnia, geueral hyperesthesia of the peripheral nerves, burning sensations in the skin, especially in the back and feet; complete loss of appetite amounting in many instances to a loathing for food of all kinds, recurrence of the suffering for which the drug was originally used, maniacal delirium, sometimes proving to be permanent dementia.

It was often the case that some or many of these complications continued for weeks or even months, in spite of the most active treatment, only to yield when the physician was forced by their severity and exhausting character to resume the administration of opiates to save the life of the patient. All the old writers advised the symptomatic treatment of these complications as they arose, but made no effort to prevent their occurrence by ascertaining and removing their cause beforehand; in fact, they regarded them as entirely due to the withdrawal of the drug, and therefore unavoidable. With this formidable array of complications to meet, and with the gloomy prognosis given by the authorities, few physicians were willing to undertake the treatment of this class of patients. This left this unfortunate class of sufferers a most ready prey for a hoard of hungry nostrum vendors and charlatans.

Something over six years ago, Dr. George E. Pettey, now of Memphis, Tenn., having patients of this class in his clientele whom he was unable to cure by any form of the reduction method, and not being willing to allow them to drift into the hands of the irregulars, decided to make a thorough investigation of the treatment of the narcotic drug addictions. He says that after reading the available literature, he was convinced that the real pathology of this condition was not understood; that there was evidently another factor to be contended with besides the drug that was being used. In an effort to determine what this was, he says he laid aside all preconceived opinions and disregarded the teachings of the standard authorities and endeavored to forget for the time being that his patient was using a drug. In approaching the subject in this spirit, he found upon examination of the patient that there was marked evidence of the retention of excrementitious matter. The tongue was heavily coated, the breath foul, digestion deranged, bowels habitually constipated, etc. In studying the list of 21 or more principal complications that are recorded by the authorities as occurring upon the withdrawal of the opiate, he found that they could be divided into 4 principal classes, as follows: Those due to the derangement of the digestive tract; those due to derangement of the circulatory apparatus; those of nervous and mental origin, and those due to obscure causes, which he was then unable to determine.

In the first class, or those of intestinal origin, he placed these symptoms: Intestinal colic, nausea, vomiting, diarrhea and anorexia.

In the second class, or those due to derangements of the circulatory apparatus, he placed rapid, labored or inefficient heart action, extreme prostration, cold, clammy sweats and collapse.

In the third class, or those of nervous and mental origin, he placed hysteria, involuntary muscular contractions, cramps, general hyperesthesia of the peripheral nerves, burning sensations in the skin, recurrence of causal sufferings and delirium.

In the fourth class, or those of more obscure origin, he placed rigors, aching of the back and limbs, extreme restlessness, insomnia, coryza and a number of other symptoms which occasionally occur.

With this classification in mind, he set about trying to find some plan of treatment that would remove the cause of each of these classes of symptoms, and thus prevent their development, and to apply that

*Read before the Alameda County Medical Association.

remedy before withdrawal was begun, while the patient was still under the supporting influence of the drug he was accustomed to taking.

The first and most prominent indication seemed to be to empty the intestinal canal with the hope of avoiding the complications which had their origin in the derangement of that tract. Great difficulty was found in doing this as long as the opiate was continued. The strongest cathartics would not act with sufficient promptness to empty the bowel between the times for the doses of opiate and when a renewed quantity of the drug was taken, all activity of the bowel would be suspended. It was soon found that this was due to the suspension of peristalsis rather than to checking of secretion. In an effort to avoid this, strychnia was administered for the specific purpose of exciting peristalsis. Small doses made little impression because of the semi-paralyzed condition of the intestinal tube from the effects of the opiate, but as the doses of strychnia were increased, more active peristalsis was induced. By observing case after case and increasing the quantity of strychnia given with the cathartics, it was found that persons under the influence of opiates have a remarkable tolerance for strychnia, but that if 1-16 to 1-8 grain was given every 2 or 3 hours until at least 4 such doses were given, free peristalsis could be excited in spite of the benumbing influence of the opiate to which the patient was accustomed, and that, when peristalsis was thus kept freely excited, the purgatives in ordinary use acted as promptly and freely as they do on persons not under the influence of the opiates. This was the first, and has proven to be the most important step in the solution of this much-vexed problem. The quantity of excrementitious matter voided under such a plan was enormous and of the most offensive character, much of it showing signs of having been long retained. When the intestinal canal had been thus thoroughly emptied, it was found that the morphia could be withdrawn at once without the development of the symptoms classed as of intestinal origin; also that all other symptoms were very greatly modified, and that many of them were entirely absent. This was especially true of those due to derangement of the circulation. Neither collapse nor anything approaching to it was observed in any case after the intestinal canal had been fully emptied. In attempting to account for this, the conclusion was finally reached that these conditions were not due to weakened condition of the heart, as the older writers had thought, but to the obstructed state of the circulation, especially of the portal system, through which the heart was unable to throw the blood when deprived of the support it had been receiving from the opiate. But when this obstruction was removed, the heart had no longer to overcome that resistance, and was able to keep up the circulation without difficulty.

Having made this distinct advance toward the development of a rational treatment of these addictions by which the cause of the dangerous complications and those most difficult to control was removed, and their development prevented, and at the same time the suffering due to other annoying symptoms reduced more than 50%, the next step was to find a remedy that would overcome the symptoms of nervous and mental origin and those the origin of which was still undetermined. Various remedies were tried for this purpose, including bromides, chloral, cannabis indica, hyoscine, hyoscyamus, duboisin, atropine, hydrotherapy, electricity, etc. Some benefit was derived from all of these in different cases, but hyoscine proved the most useful, and, after becoming more familiar with its effects and mode of use, it was found to meet all the indications not met by thorough elimination.

After a period of clinical study of two years in which more than 150 cases were treated, Dr. Pettey announced the results of his investigations to the profession, with the following conclusions:

"Auto-toxemia is the essential pathology of morphinism. When the system is freed from toxic matter and the portal system disengorged, morphine can be at once withdrawn without shock, collapse, heart failure, diarrhea or other dangerous symptoms, and the suffering incident to such withdrawal will subside within a few days' time without further treatment of any kind. This suffering, severe as it would otherwise be, can be avoided and these days passed in comfort by the discreet administration of hyoscine.

"All desire for morphine, as well as the necessity for its use, is overcome by such a course of treatment.

"Strychnia is an essential ingredient of any purgative course intended to empty the intestinal canal of a drug user. Without its liberal administration, sufficiently free peristalsis cannot be excited to empty the intestinal canal while the system of the patient is benumbed by the effects of the opiate. The administration of strychnia should be confined to the period of elimination and given for the specific purpose of exciting peristalsis, but should not be administered after the withdrawal of the drug, as advised by the old writers, because, at that stage, it keeps up too free peristalsis and inclines the bowel to empty itself too often. This interferes with digestion and assimilation, and causes diarrhea by the passage of incompletely digested food through the bowel."

In regard to the prognosis, he says that instead of these complications being uncontrollable and the morphine addiction hopelessly incurable, this plan of treatment renders it the most certainly and readily curable of all the chronic ailments.

During the last year the writer has had opportunity to verify every claim made for this plan of treatment by its author, and wishes to put on record the following cases treated by his method:

Case 1.—L. B. S. Morphine addiction of 3 years' standing. Was acquired by having morphine given to him to sober him after sprees of whisky drinking. These sprees continued to occur with increasing frequency, and in the course of a year the drug was taken daily. The dose was increased until, at the time of coming for treatment, he was taking 15 grains at a dose twice a day, by the mouth, but had not drank whisky for more than 2 years. Weight 150 pounds; height 5 feet 7 inches. Condition, fair for a drug user.

November 12, 1904—Began treatment by abstaining from dinner. 3 P. M., gave a capsule containing calomel 2½ grains, powdered extract cascara 2½ grains, powdered ipecac ¼ grain, strychnia nitrate 1-16 grain, and repeated same at 5, 7 and 9 P. M., and at 5 P. M. gave 15 grains morphine. 9:30 P. M., gave vapor bath and high enema of saline solution.

November 13th—7 A. M., gave 1-15 grain strychnia hypodermatically. 7:30 A. M., gave one bottle citrate magnesia, and used vibratory massage for bowels. 8 A. M., very large movement from bowels, containing much scybalum. 8:30 A. M., another very free movement from bowels. 9 A. M., it is now time for the patient to take his usual morning dose of morphine, but he is quiet and comfortable, and nothing is given. 2 P. M., bowels have moved 5 times since 8:30 A. M., the last two actions were very bilious. Patient slept most of the morning, but now says he feels uncomfortable, and wants something to relieve him. 2:10 P. M., gave 1-200 grain hyoscine hypodermatically. 2:40 P. M., gave 1-200 grain hyoscine hypodermatically. 3:40 P. M., gave 1-150 grain hyoscine hypodermatically. 4 P. M., patient says he is not suffering, but feels sleepy. 10 P. M., patient has laid in bed quietly for the last 6 hours, was drowsy but not asleep; pulse 78, respiration 18, temperature normal. 10:10 P. M., gave 1-100 grain hyoscine hypodermatically; about half hour later patient fell asleep and slept soundly for 6 hours; on waking said he was comfortable, drank water freely, and kidneys acted.

November 14th—8 A. M., patient has been awake for the last 3 hours; has sat up most of the time, but is now in bed; says he is not suffering any real pain, but is not altogether comfortable; gave 1-100 grain hyoscine. 2 P. M., patient's condition for the last 6 hours has been entirely satisfactory; has slept several short naps; when awake he laid quietly in bed and said he was not suffering in any way. 3 P. M., gave capsule containing calomel 2 grains, sodium salicylate 4 grains, and strychnia nitrate 1-16 grain, and repeated same at 5, 7 and 9 P. M. 10 P. M., gave 10 grains veronal.

November 15th—7 A. M., patient slept from 11 P. M. till 5 A. M.; on waking bowels acted freely, and have acted three times since 5 A. M., but actions were not free. 7:30 A. M., gave one-half bottle citrate magnesia, also 1-20 grain strychnia, the latter hypodermatically. 11 A. M., bowels have acted 3 times since 8 A. M.; actions not large, but very bilious; patient says he is entirely comfortable, except he feels weak; has no desire for morphine, but would like to have something to make him feel stronger;

gave glass of hot milk. 8 P. M., no medicine of any kind has been given since 7:30 A. M.; patient has passed a comfortable day; has taken a glass of milk every two hours since 11 A. M.; says he has some pain in back and legs, not severe, but thinks it would be sufficient to keep him from sleeping; has had slight temperature this evening, is now 100.5°; pulse 85, respiration 20; gave 7 grains aspirin. 10 P. M., temperature has fallen to 99°; is more comfortable; gave 7 grains aspirin. 11 P. M., has been in a moderate perspiration for the last two hours; temperature now normal; no pain anywhere; sleepy.

November 16th—8 A. M., patient has slept most of the time since midnight; was awake several times, but soon fell asleep again; says he is not suffering at all, and has no desire for morphine, but wants a big breakfast; was given bowl of milk toast; no medicine. 9 P. M., patient has passed a comfortable day, without medicine; has taken nourishment regularly; bowels have acted once, and kidneys have acted several times freely; temperature has been a little above normal for the last four hours, is now 98 3-5°; gave neutral bath, and half hour later 5 grains aspirin.

November 17th—8 A. M., patient did not get to sleep until midnight, but slept most of the time from then till 6 A. M., when he got up, took bath and dressed for breakfast; says he feels entirely well, but weak; went to dining room with other patients for breakfast.

November 20th—Patient has spent the last four days in comfort, without medicine, except an aspirin capsule at bedtime; temperature has been from two-fifths to three-fifths of a degree above normal each evening, until to-day it is hardly one-fifth above normal; aspirin discontinued, and neutral bath alone given at bedtime.

November 30th—Patient has made rapid progress toward entire recovery during the last ten days; no medicine of any kind has been taken; has eaten heartily, slept from four to six hours each night; bowels have acted two to three times each 24 hours, but there has been no approach to diarrhea, and there has been no other unpleasant symptom; says he feels as well as he ever did, and wants to get back home to his family. Discharged.

June 4, 1905—Patient reports under this date that he is in excellent health, and has been hard at work since January 1st; has felt no desire for either morphine or whisky.

Case 2.—Dr. T. T. S., aged 48. Weight, 140. Height, 5 feet 10 inches. Morphine addiction of 5 years' standing; daily quantity used, 20 grains, taken hypodermatically at 3 doses. Use of drug began for relief of sciatica, which has entirely disappeared.

November 25, 1904—Took Turkish bath and usual dose of morphine; no dinner or supper; gave capsule containing 2½ grains calomel, 2½ grains powdered extract cascara, ¼ grain ipecac and 1-12 grain strychnia nitrate at 4, 6, 8 and 10 P. M., and at 8 P. M. gave 8 grains morphine hypodermatically; last dose.

November 26th—7 A. M., gave 1-15 grain strychnia hypodermatically. 7:30 A. M., gave one bottle citrate magnesia. 8 A. M., very copious and offensive action from bowels; it is now time for the morning dose of morphine, but patient says he is comfortable yet, and can go for a while longer without it. 12 noon, bowels have moved several times since 8 A. M.; two of the actions were quite copious, and the others were of a bilious character; no nausea or other distress accompanied or preceded the action of bowels; slept between movements of bowels. 2 P. M., patient says he is beginning to feel the need of his dose of morphine; is yawning and sneezing, but not in pain; pulse 70, full and strong; temperature normal. 2:10 P. M., gave 1-200 grain hyoscine hypodermatically. 2:30 P. M., gave 1-150 grain hyoscine hypodermatically. 3 P. M., patient fell asleep, and slept three hours; on waking says he is not suffering, but thinks a dose of morphine would make him feel better. 6:30 P. M., gave 1-150 grain hyoscine hypodermatically. 8:30 P. M., gave 1-150 grain hyoscine hypodermatically. 8:45 P. M., bowels acted freely, very bilious discharge; soon afterward patient fell asleep, and slept until 1 A. M.; on waking says he feels quite comfortable.

November 27th—1:30 A. M., gave 1-150 grain hyoscine hypodermatically. 3:30 A. M., gave 1-150 grain hyoscine hypodermatically. 8:30 A. M., patient was restless for about an hour after the last dose of hyoscine, had delusions of sight and hearing, but says he is not suffering. 10 A. M., gave 1-150 grain hyoscine hypodermatically; slept two hours. 2 P. M., gave 1-150 grain hyoscine hypodermatically. 9 P. M., for the last 8 hours patient has been quite comfortable, says he has no pain anywhere, has had several dozing spells, but has not been asleep soundly; pulse 60, full and soft; respiration 16; temperature normal; skin moist, but not sweating; no action from bowels during the last 24 hours, but kidneys have acted freely; gave capsule containing calomel 2½ grains, sodium salicylate 4 grains, and strychnia nitrate 1-16 grain at 3, 5, 7 and 9 P. M.; also 1-150 grain hyoscine at 9 P. M.

November 28th—7 A. M., patient passed a comfortable night; slept 4 or 5 hours; had 3 liquid stools between 2 and 6 A. M., which were of a bilious character, and very offensive; no nausea or other distress; says he feels weak, but is otherwise comfortable; is hungry; gave 1-20 grain strychnia. 7:30 A. M., gave half bottle citrate magnesia. 10 A. M., bowels have moved 3 times since 8 A. M.; the last 2 were free watery actions, colored with bile, but not very offensive in odor. 11 A. M., gave glass of hot milk, which was taken with relish. 6 P. M., patient has taken 4 glasses of milk since 11 A. M., all of which have been retained; no nausea, colic or other unpleasant symptom; has had 2 small actions from bowels during the afternoon, but no tendency to diarrhea; has been begging for solid food, but that has not been allowed; no medicine indicated, and none given.

November 29th—8 A. M. It has now been 84 hours since the last dose of morphine was given, 35 hours since the last dose of hyoscine, and 24 hours since the last dose of any other medicine was given; patient has spent a very satisfactory night, slept 5 hours, says he feels weak, but is not suffering; his circulation and respiration are normal, temperature is 2-5° above normal; his tongue is now clean, his breath has lost its offensive odor, the bronze muddy appearance of the skin has disappeared, and he says he was never as hungry in his life, but does not want morphine; no medicine, but a more liberal diet.

November 30th—9 A. M., patient was up and about his room most of the day yesterday; was given soft boiled eggs, milk toast and all the milk he wanted to drink, but no medicine; was tired when night came; went to bed early and slept 5 or 6 hours; he says he feels well, and certainly seems very happy since he realizes his independence of drugs; says he has no desire for morphine or any other stimulant; was put on course of physical training and liberal diet.

December 10th—It is now 15 days since the patient began treatment, and the last 10 days have been spent in comfort without medicine of any kind. Has slept from 5 to 6 hours out of each 24, is eating heartily, and gaining flesh and strength at a rapid rate. Bowels act regularly; has had no diarrhea or other complication. Has kept up course of physical training faithfully. Was allowed to go to the country to visit relatives for a couple of weeks.

December 26th—Patient returned from the country today. The improvement in his appearance and condition is most marked. The stooped posture which he had acquired while taking morphine has given way to one of erect carriage. Now weighs 160 pounds, which is a gain of twenty pounds since beginning treatment 31 days ago. Has kept up physical training regularly, and this has converted the newly acquired flesh into muscle; says he feels strong enough to undertake anything that he ever did in his life, and is anxious to get back to his practice. Being a man of intelligence and superior training, he felt his slavery very keenly, and resorted to many expedients, home treatments, etc., to free himself from it, but without success. Now that he realizes he is a free man, and has another chance in life, he says he is going to take up its duties with renewed energy and determination, and try to make up for lost time. Discharged.

June 1, 1905.—A letter from Dr. S. of this date says: "I am as well as I ever was in my life, and am doing as hard work, with as much satisfaction. I continued to gain flesh after leaving you, until I weighed 180 pounds, which was 5 pounds more than I ever weighed before. I have had no occasion to take medicine of any kind since leaving you, and if I had I certainly would not have taken an opiate. In fact, I never think of morphine except as the most blighting curse on earth. I can hardly realize now that a little over six months ago I was almost as dependent on it as I was on the air I breathed. My whole experience with it seems as a horrible nightmare to me. No language can express my gratitude to those who released me from that abject slavery.

"I feel that I should not close without commending your course of physical training. It seemed unimportant to me at the beginning, but it was the very thing I needed. After being taken off of the drug, my tissues were flabby and relaxed, and I was weak in every way. The training course enabled me to acquire a fund of reserve physical force that has been worth everything to me. I am able to stand the strain of the heaviest day's work without feeling the need of stimulation. I believe that your course of physical training is the most effective means of preventing relapse in these cases that can be devised."

After the treatment of a series of 30 cases of drug addiction by this method I am convinced that results very closely approaching, if not equally as satisfactory as the above can be obtained in almost every case where the patient's condition is at all fit for treatment, and where the coöperation of the patient can be had. If a patient is subject to recurring attacks of hepatic or renal colic or other such painful ailment, it is useless to attempt to cure the addiction unless the plan also includes a radical surgical procedure or other means calculated to remove the cause of the pain. In such cases the most satisfactory results may be obtained by having the patient operated upon soon after the treatment for his addiction has been completed and before he is called upon to pass through the suffering of another attack of colic or other painful ailment to which he is subject.

As a rule, the community does not appreciate the value of services, whether medical or surgical, because it fails to realize in the least degree the burden of care placed on the physician and on the surgeon.

A CASE OF HYDRO-NEPHROSIS OF MOVABLE KIDNEY; HEMATURIA FROM TORSION OF PEDICLE; NEPHRECTOMY; RECOVERY.*

By J. WILSON SHIELS, M. D., and C. C. LEVISON, M. D., San Francisco.

J. B. Male; baker; 37; admitted to the City and County Hospital March 27, 1905. Family history unknown; denies venereal history; is not alcoholic.

Previous history: Twenty-five years ago was struck in the back, right side, by clod of earth; caused much pain and hematuria, which lasted a day. About a year later was thrown from a horse, this injury also causing hematuria for a day. About 20 years ago fell on a steel bar, striking right groin, and saw slight amount of blood intermixed with urine, which persisted for a day.

Six months before entering the hospital, had a severe fit of sneezing, lasting fully an hour, and says he felt something give way in his abdomen. A day or so later a swelling the size of a hen's egg appeared to right of and a little below umbilicus, and this swelling would disappear, with an increase in the amount of urine voided, to reappear at a later period somewhat increased in size. During all this time patient complained of dull, aching pain in the right lumbar region. Just previous to entering the hospital the tumor was noticeably enlarged, even to twice the size when first noticed.

On April 27th, early in the morning, while carrying a heavy tray of bread, stumbled and fell, striking right side over edge of barrel standing near. After about two hours, on account of pain, was compelled to quit work; tumor became larger; pain very severe. At this time he could not void urine, and at 4 P. M. was catheterized by Dr. J. Wilson Shiels, and bloody urine withdrawn; pulse, 96; respiration, 20; temperature, 100° F.; leukocyte count, 15,000. The tumor was round and smooth, and extended 6 cm. above plane of umbilicus, and into pelvis 14 cm. to right of median line, and 4 cm. to left of median line; tumor moved with respiration. Peritonitis not present, which was evident by the free excursions of the diaphragm, and free abdominal breathing.

Palpation revealed a smooth, fluctuating tumor, exquisitely sensitive; colon could be palpated on upper surface of tumor, and could be moved up and down. The tumor was not to be palpated in the lumbar region, and a complete examination was not possible on account of pain.

Percussion: There was tympanitic sound elicited between tumor and liver, also to left of tumor; bladder was empty (had been catheterized); dullness above the symphysis. Auscultation of abdomen negative. No increase of peristaltic movements. On account of poor condition of patient it was concluded not to make bladder or ureteral examination.

Diagnosis: Most probable diagnosis in consideration of the history, hydro-nephrosis of movable kidney with torsion of the pedicle, which was the diagnosis made by Dr. J. Wilson Shiels, but on account of the position of the tumor there was an element of doubt. Stomach, liver and gall-bladder disease could be eliminated with a fair degree of certainty. Pancreatic and mesenteric cysts could not be excluded, as the tumor was undoubtedly retro-peritoneal; echinococcus cyst had also to be considered. Ileus, invagination and volvulus of cecum could be excluded quite easily; rupture of the bladder, also mentioned, but excluded, as also aneurism, for there was neither pulsation nor bruit; tuberculous peritonitis, as well, was excluded.

As indications for operation were imperative, patient was prepared immediately for abdominal section. There was a tumor the size of a cocoanut extending from right semilunar line to point midway between umbilicus and left semilunar line, being below a line drawn transversely through the umbilicus, the point of greatest prominence.

Incision was made over greatest prominence, and a quantity of serous fluid was evacuated from abdominal cavity as soon as peritoneum was opened. A lobular tumor presented which could only be delivered after the posterior parietal peritoneum was incised, as it lay in a retro-peritoneal recess. With the exception of the appendix vermiformis, which was adherent to its anterior surface, there were no adhesions. Only after considerable difficulty could the tumor be recognized as the kidney. In view of the fact that there was so little kidney tissue remaining, and the proximal portion of the ureter was contracted and twisted, it was determined to perform a mephrectomy after the left kidney was palpated. The retro-peritoneal recess was closed with a narrow gauze drain, and abdomen closed. Patient passed 900 cc. of urine in first 12 hours; uneventful convalescence.

Closure of Tracheotomy Wounds.

T. C. Hoover, Columbus, Ohio (*Journal A. M. A.*, June 3d), reports a case of low tracheotomy for removal of a foreign body that was treated by immediate closure with fine catgut throughout, beginning with the trachea. No drainage was used, and the healing was prompt and uneventful

*Read before the San Francisco Polyclinic Gathering, May 6, 1905.

SOME REMARKS ON THE TREATMENT OF COMPOUND FRACTURES.*

By G. N. DRYSDALE, M. D., Eureka.

I HAVE chosen as a subject for this paper the treatment of compound fractures. I have done so because my location being in the center of the redwood lumbering industry, we probably have a larger number of such accidents than in most places with the same population. I don't propose to give you anything exhaustive on the subject or to offer anything new, but I would like to mention some points in the treatment which from my experience seem to me worthy of mention. I have, therefore, headed my paper, "Some Remarks on the Treatment of Compound Fractures."

It will be well before taking up the treatment of these accidents to mention some of the causes and the condition of the injured parts immediately after the injury. The causes of compound fracture are usually given as direct or indirect violence. Indirect violence usually means some twisting or displacement of the fragments following a fracture, which causes the ends of the fragment to puncture the overlying tissues, and need not be further mentioned. The direct causes are many and varied, such as blows from falling timber or limbs of trees, machinery accidents when a limb is caught and crushed in revolving machinery. A common cause in our locality is the slipping of the large cables used to haul the logs out of the woods. One end of the cable is attached to a stationary engine, and the other, perhaps half a mile away, to a large redwood log, which is towed along an improvised road. To guide the cable around turns in the road, it runs over pulleys. Frequently the cable slips while the load is being hauled, and if a man is unfortunate enough to be on the wrong side of the cable when it slips, he is generally a fit subject for a hospital or an undertaker when he is picked up. With a fracture caused in this manner we often have a combination of direct and indirect violence. A blow on the leg, for instance, will cause a fracture of the bones and laceration of the tissues on the side that was hit, and the force of the blow drives the fragments through the tissues on the other side.

As to the condition of the parts immediately after the accident we find all grades of severity of injury from the simple fracture with small punctured wound of overlying tissues, to severe contusion and laceration of the tissues with comminution of the fragments of bone. I would divide these injuries according to their severity into simple fractures of bone with small wound of overlying tissues, simple fractures of bone with extensive laceration and contusion of overlying tissues, multiple fractures of bones with severe laceration and contusion of overlying structures. Most of these accidents happen to men while working in the woods, mills or around machinery, and as a rule we find besides the injury to the tissues the wound is covered with dirt of all kinds from ordinary dust, bark and charcoal to grease from machinery; and oftentimes it is ground right into the tissues.

In treating these accidents much depends on the first dressing. This and the after treatment can be carried out better in a well-equipped hospital than any place else, and I think all cases should be moved to a hospital as soon as possible, if one is within easy reach. In the meantime a temporary dressing can be applied so that the patient can be moved without further injury. In many of the cases some temporary retentive apparatus is applied over the clothing by fellow workmen, and the patient sent at once to a hospital, so that we see our patient for the first time in the hospital.

It is almost needless to say that in preparing to dress these cases our preparation of operating room, ourselves and assistants should be thorough. Primary union of the wound in the soft tissues is the object

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

to be aimed at in all cases when it is possible, and even where it is not possible every source of infection that it is possible to remove should be removed.

We will pass over the preliminary preparation of the patient, taking it for granted that the preliminary examination of the injury has been made, dirty clothing removed and the patient prepared for the operating room, where the real dressing is to be done.

In most of the simpler cases those with a small punctured wound of the overlying tissues, it is sufficient to shave and cleanse the surrounding skin thoroughly, cauterize or incise the edges of the wound, seal or suture and then seal the wound with collodion, and treat the fracture as a simple one. In cases where the injury to the soft tissues is more severe, treatment, I think, should be more radical. Even if the opening in the skin be small, I think we should enlarge it,examine the wound thoroughly, remove blood clots, badly lacerated tissue and loose fragments of bone, arrest hemorrhage, cleanse the wound thoroughly with saline solution, wire the fragments if necessary, and close by suture with the idea of getting primary union. The question of drainage in these cases of medium severity is a question of judgment on the part of the operator. I think if the tissues are not too badly contused, and it is possible to bring them together so as to obliterate dead spaces, I prefer to close completely.

In the very severe cases, where there is much laceration and destruction of the tissues, with perhaps foreign particles ground into the flesh, our treatment is different, and these are the cases that I had in mind when I started this paper. In these cases primary union is out of the question, but with thoroughness in the first dressing and careful watching afterward most will heal kindly. Our first dressing should be thorough and radical. The wound should be opened freely so that all parts of the wound can be examined. Loose fragments of bone should be removed, badly lacerated and contused tissue trimmed off, and foreign matter removed by thorough washing. In doing this I prefer to have an esmarch applied so as to render the field of operation bloodless, and in this condition foreign particles are more easily recognized; then with a sterile hand brush and hot saline or Liquor Cresolis Compositus solution carefully but thoroughly scrub the tissues. Follow this with copious irrigation with saline solution, opening up all parts of the wound. With the wound cleansed, wire the bone fragments. The wiring may not be of any permanent benefit in these cases, but it steadies the fragments at least during the subsequent dressings. Then remove the esmarch and arrest hemorrhage. Some sutures may be applied loosely, but free drainage is an essential, either by leaving the wound open or by making free counter-openings so as to allow no pockets in which the secretions may collect. For a dressing I prefer moist dressings from the beginning, gauze wrung out of hot boracic acid solution or weak Liquor Cresolis Compositus and covered with rubber tissue, and over this plenty of absorbent cotton.

The after treatment of these cases is even more important than the first dressing. In spite of our best endeavors in some cases we will get infection, and this must be combatted by constant care as to drainage, hot compresses saturated with some antiseptic, and changed frequently. In some cases continuous irrigation with a similar antiseptic is necessary. In other cases the severity of the injury itself will cause sloughing and the separation of the dead tissue will require encouragement with moist dressings and the same careful dressings as in the infected cases. After the inflammatory process has subsided, healing, I think, takes place more kindly for some time with moist dressings than dry. At a later stage there will probably be some necrosis of bone that has been denuded of periosteum, and this requires attention. In this, however, I think we should be conservative. I have been surprised to see the small amount of bone lost in cases where a large amount had been stripped of periosteum, and I think nature will tell us how much should be removed better than we can find out; and non-interference does not delay healing or union in most cases. Sequestra should, of course, be removed whenever found.

The question of retentive apparatus, while always important in fracture cases, is, I think in these severe cases of compound fracture, for a time at least, of secondary importance. Careful dressing, daily or oftener, is essential, and any splint that is used must be applied with this object in view. Later, when the external wound is healing kindly, the question of a suitable splint becomes of prime importance. In the beginning some apparatus should be applied that will support the limb firmly and comfortably, and that can be removed easily, oftentimes a pillow covered with a rubber sheet and pinned firmly around the limb with sand bags on either side will answer best. Later, when the necessity for a permanent splint arises, the same rules apply as in other fractures, excepting that we still have an open wound that requires dressing, and we must provide for this. As a rule plaster of Paris will be found the best material for a splint, either as a solid cast with windows cut over the wound or applied in strips so as to form well-fitting splints that can be removed.

Our results in some of these cases so far as the length of the limb, or sometimes the straightness of the limb, is concerned may be far from perfect; but if we succeed in getting bony union and a useful limb for our patient, even if it does not look well, we may have gotten an excellent result. As an example I would like to cite the following case:

M. G., age 27, while working in the redwoods, was struck with a cable that slipped in the manner I described at the beginning of this paper. He was standing with his full weight on his right leg, and the cable struck him on the outer side of the right leg just above the ankle. The result was a compound comminuted fracture of the right tibia and fibula about 3 inches above the ankle joint, with severe laceration and contusion of the soft tissues. A temporary splint was applied by some of the woodsmen over his clothes, and he was put on a train and sent to the hospital, where I saw him about 3 hours after the accident. Upon removing the clothing I found a fragment of the tibia about an inch and a half long and half an inch wide lying loose in the clothing, the fragments of the tibia were protruding through a large wound on the inner side of the leg, and another wound on the outer side exposed the fibula; circulation in the foot was good. The patient was cleaned up and removed to the operating room, where I dressed the wound after the manner I have described, opening the wound thoroughly, removing several pieces of loose bone, trimming away badly lacerated tissues, cleansing the wound thoroughly and wiring the fragments. I did not do much stitching, as I expected swelling and probably sloughing, and I wasn't disappointed. Ten days afterward the tibia was exposed to view through a hole that seemed to cover most of the inner side of the ankle, and another large one exposed the fibula, and it looked as if the foot might drop off. There was not much inflammation in the surrounding tissues, and the circulation of the foot remained good. After the sloughing tissues separated, the wounds began to granulate, and gradually filled in, but it was a slow process. At the end of 7 weeks the wounds had pretty well filled in, and it began to look encouraging, but there was no effort at union. At the end of the eleventh week the wound over the fibula had completely closed, and the other one almost so, and the leg felt firmer. During this time I kept the leg in a fracture box, removing it daily for dressing. I discarded the fracture box at this time and applied a plaster cast, which I cut on both sides the next day. This made a well-fitting cast that I could remove when necessary for dressing. At the end of 12 weeks I allowed the patient on crutches, and at the end of 4 months there was a complete bony union, and the patient began putting weight on his foot. During the fifth month two or three small pieces of bone were removed from the wound over the tibia, and at the end of the fifth month healing was complete and the patient walked without any assistance. There was some overlapping of the fragments and nearly two inches of shortening, but the patient now walks without a noticeable limp. Looking at the leg now, without any history of the case, one would consider it a bad result, but I look upon it as one of the best results I have had.

My ideas as to the treatment of these severe cases of compound fracture may be summed up as follows:

Thorough and radical treatment at the first dressing, constant and careful attention to the little details of the dressings following, with lots of patience both on the part of the surgeon and the patient.

So far I have said nothing about amputation. I have left that to the last, as I think it should be the last thing thought of in these cases. Of course, we meet with some cases where the injury is such that amputation has to be done at once; but I think if there is a possible chance to save a limb for our patient we should try it.

Patent Medicines: A Good Suggestion.

ROGERSVILLE, Tenn., September 13, 1905.

To the Editor: Under separate cover I am to-day mailing you a marked copy of the *Rogersville Review*, a weekly newspaper published in this, a town of about 3000 inhabitants. I have had the editor copy your editorial[1] of September 2d on the patent medicine fraud as it prevails in the United States with special reference to peruna. These little weekly papers circulate among the rural people, where every issue is read through, ads and all alike. I would suggest that you induce every member of the American Medical Association to have this or some like article occasionally brought out in his home paper. Surely all the physicians of a town would have sufficient influence with their local paper to do this. I assure you that it would work wonders. The people at large have never heard anything but praise of these nostrums, and they fully believe that the ads are written and sanctioned by the medical profession.

This plan would doubtless not work in the larger cities where the advertising bills are large, but it could very easily be done with the small daily and weekly papers, published in villages and towns, as you will see. I propose to have some articles of the kind appear every week. The sums paid these small papers for carrying patent medicine ads is a mere pittance. J. E. MILLER, M. D.

—*Journal A. M. A.*, September 23, 1905.

Thyroid Disease in California.

H. C. Moffitt, San Francisco (*Journal A. M. A.*, September 16th), writes interestingly on thyroid disease in California. Observation has convinced him that thyroid disease is more common in San Francisco than in many other cities, and he has studied the subject by correspondence with other physicians throughout the state. Goiter is more common, especially about San Francisco bay, and less frequent in the southern part of the state and in the mountains, and is endemic in certain portions of the northern section. Myxedema seems to be more frequent in San Francisco, perhaps because most patients drift there. He has reports of 53 cases in that city and 33 throughout the state, excluding *formes frustes*, of which he has notes of 11 cases. These are characterized by dry skin, scaling of the scalp, thinning of the eyebrows and loss of hair from the neck and in the axillæ, pains in the knees and ankles and between the shoulders, and fat pads about the upper back and clavicle are characteristic. Of sporadic cretinism, he has collected 61 cases altogether, 35 of them in San Francisco. Exophthalmic goiter seems to be much more common in bay counties than elsewhere in the state, and he remarks on the danger of the use of the iodin preparations, especially when a goiter exists, however small. He has had several cases of iodism in patients with small goiters, and he suggests the possibility of the strong sea winds in San Francisco affecting the frequency of cases. The therapy of thyroid conditions is discussed at some length. The reports as to thyroid medication in myxedema and cretinism are enthusiastic; large doses are not required, and they may produce unpleasant symptoms in myxedema. He has seen good results in exophthalmic goiter from long-continued faradism. He thinks many cases of exophthalmic goiter are amenable to surgery, and that more attention should be given to the statement of Horsley that division of the isthmus alone leads to retrogressive changes and shrinking in the rest of the gland.

[1] "A Miserable Outrage," *The Journal*, Sept. 2, 1905, p. 722.

NEPHRO-PHONOTOSCOPE AND URETO-RENAL CALCULI.

By GEORGE L. EATON, M. D., San Francisco.

WITHIN the last decade many urological instruments have been invented for the purpose of determining disease of the genito-urinary tract. Prof. Nitze served the profession well when he produced the cystoscope, and with it we are able to determine with exactitude many pathological conditions of the kidney and bladder, and thereby avoid many exploratory operations. Still, at the present time urologists are handicapped in as much as so few instruments of practical value are at hand by which one is able to determine the true state of affairs.

Since the advent of kidney and renal catheterization, we are in a fair way of determining which kidney is at fault, and also the class of inflammation we have to contend with, as well as the functionating capacity. Dr. Winfield Ayres of New York has recently popularized kidney therapy by lavage of the renal pelvis to such an extent that his statistics go to show that a large percentage of kidney lesions are amenable to treatment and many pyelitic conditions are reported permanently cured.

Quoting directly from his article read before the American Urological Association in 1905, concerning the etiology of renal calculus: "Catarrhal pyelitis may exist for a long time and do no apparent harm; it, however, presents a beautiful field for the growth of a stone, and it is probable that all calculi have as their starting point a pyelitis—" It would be well at this point to consider the etiology of pyelitis. If it were possible to catalogue every pyelitic case in existence, in both male and female, I feel positive that at least 80% would give a history of gonorrhea, with one or more of the subsequent complications, e. g., cystitis, posterior urethritis, prostitis, vesiculitis, vasitis, epididymitis, metritis, endometritis, oöphoritis, salpingitis, etc. The other 20% would represent constitutional ailments with a predisposition toward nephritic complications.

Granting that pyelitis occupies an important role in the etiology of renal and ureteral calculi, we are now in a position to discuss the formation of the calculus, whether it be renal or ureteral; they must all have a nucleus for a starter. To begin with, we have an engorgement following an inflammatory process, which has a tendency to obstruct the lumen of the ureter nearest to the greater area involved, which would include the pelvic ureter. With this condition of affairs we should naturally expect a retardation in the flow of urine, thereby causing a gradual dilatation of the kidney pelvis and a resulting hydronephrosis with an accumulation of uric acid and oxalate of lime which, as you will readily see, may act as a nucleus and in a very short time produce a calculus.

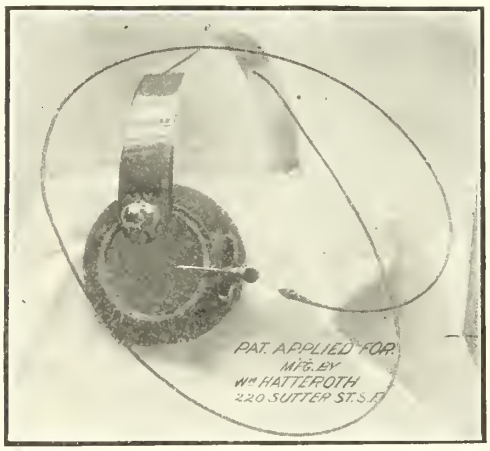
Symptoms of renal and ureteral calculus are variable, in fact so much so that pain may be transferred to some distant part instead of being located in the organ affected. Bladders are frequently sounded, irrigated, and opened, ovaries and the appendix are removed, all to no purpose; as in one very striking instance in which the bladder was opened for stone, all symptoms pointing to the same, but upon subsequent examination and operation a renal calculus weighing 260 gr. was found.

A calculus may develop, and traverse the urinary passage, and escape without giving rise to any symptoms, while on the other hand the most excruciating pain with marked nervous symptoms and high fever will sometimes accompany one of much smaller size. Apart from an attack of renal colic, one of the most common symptoms is the pain referred to, the lumbar region, the front of the abdomen over the affected kidney and down the course of the ureter. Still all of the direct and reflex symptoms may be absent, and the only sign that attracts our attention may be the character of the urine, in which after being

examined micro- and macroscopically blood, pus and epithelia are found.

Diagnosis: Now what means have we at hand, outside of the symptoms above referred to, that will positively locate a renal or ureteral calculus? To be sure the X-ray has served us well and is a valuable adjunct in the determination of calculi and foreign bodies of the proper density, but we are liable to be deceived by it in so much as we have a highly concentrated solution of lime oxalate and uric acid, either one of which is capable of producing shadows resembling a concretion. This fact I think will explain many phantom calculi. Therefore it is necessary to resort in part to other means of determination. Recently, Dr. Howard Kelly of Baltimore devised a ureteral bougie with a wax tip; by the aid of a cystoscope the ureters are entered and as the bougie comes in contact with the calculus a slight indentation is made upon the wax, providing the calculus is large and firmly incarcerated so as to produce an impression, otherwise it promises nothing but failure.

I beg to present an instrument that I have recently devised for the purpose of determining and locating ureteral and renal calculi. The instrument consists of two important parts, i. e., a sensitive mica diaphragm which is adjusted to the ear of the operator by a pneumatic cushion and retained in place by a head band. The second part consists of a steel cable 30 inches long, terminating in an olive or probe point. With the exception of the terminus, the cable is firmly incased in a silk web sheath so as to protect the soft parts. Furthermore, the sheath



is marked in centimeters, reading from the terminus, the purpose of which is to determine the distance from the ureteral opening to the calculus. By the aid of this Nephro-phonotoscope I am able to locate a renal or ureteral calculus without injury to adjacent structors. After locating the concretion it would be well to have an X-ray photograph made while the cable remained in the ureter, thereby showing very distinctly the cable as it comes in contact with the stone.

The following is my technic, and should be carefully followed. The patient should be placed upon hexamethylene-tetramine at least 24 hours previous to the examination. The bladder is thoroughly washed until the return is perfectly clear and free from filaments. Then about 250 cc. of sterilized water, with one-half of one per cent alcohol added, is introduced and retained in the bladder; the strictest antiseptic precautions are adhered to at all times. A Nitzie cystoscope, after having been submerged in 1-500 solution of oxycyanide of mercury, is then introduced, both ureters are catheterized and the urine from each is submitted to an examination to determine which of the two is at fault. This procedure accomplished, the Nephro-phonotoscope is then called into use. First, the diaphragm is attached to the ear of the operator, the cable is then removed from the aseptic solution, and introduced through the ureteral carrier of the cystoscope. Great care should now be exercised, for fear of puncturing the bladder while attempting to enter the ureter that is to be examined. After entrance, the cable should be passed up the ureter very slowly while the operator keeps his ear trained for the peculiar grating sound, that is produced, and will be readily appreciated as the cable comes in contact with the calculus. It might be well to have an X-ray photo taken, with the cable in situs, as already suggested. One point I wish to emphasize is that after a calculus has once been located, the patient should not be subjected to any further clinical demonstrations, for there is danger of infection, but should immediately be operated upon and the concretion removed. I here report two illustrative cases, simply as demonstrating the efficiency of the instrument:

Case 1—Mr. M., age 48; occupation, miner in Mexico. Has never had any serious illness, but gives a history of contracting syphilis in 1892; was treated by mercurial inunctions for more than a year. In 1899 patient contracted gonorrhea, which lasted until 1903, and since then patient has had more or less trouble with the following complication: Epididymitis on the right side, following a prosto-cystitis.

Examination. Meatal secretion very scanty. Microscopically it contained pus and urethal epithelia, but no gonococci. The prostate gland and seminal vesicles were next examined, and the following condition found: The prostate somewhat enlarged, right vesicle very large and sensitive, the contents contained blood, pus and a few gonococci. The patient was then instructed to save his urine for 24 hours, which was examined, with the following results: Total quantity, 1500 cc.; total solids, 790 gr.; color, milky; reaction, acid; sp. gr., 1.124; albumen, 1-10%; sugar, absent; urea, 2%; casts, granular; crystals, oxalate of lime; epithelia from pelvis of kidney and uriniferous tubules; blood, absent; bacilli of no importance; pus, in great quantity.

Cystoscopic examination showed a slight inflammatory area surrounding the right ureteral mouth. Catheterization of both ureters and one ounce of urine collected from each. Left, normal with 2¾% urea. Right, albumen, 1-10%; urea, 2%; casts, granular; crystals, oxalate of lime; pus in great quantity.

The bladder was washed and the cystoscope reintroduced, carrying with it the cable of the Nephro-phonotoscope, which was very easily introduced into the ureteral mouth of the affected kidney. After the pelvis was reached and a to-and-fro movement of the cable made, a very distinct grating sound was produced. Diagnosis—Calculus of the kidney pelvis with chronic pylo- nephritis. An operation was advised, but patient declined and returned to Mexico; since then no word has been received.

Case 2—Mr. W., age 32; mother and father both dead. Mother was a victim of rheumatism. Father met death by accident. Patient has never had any sickness, except now and then a few muscular pains resembling rheumatism. In 1901, patient contracted gonorrhea, which gave him a great deal of inconvenience, especially upon urination.

Examination revealed the following: Quite a copious meatal discharge, which contained pus, epithelia and gonococci. Prostate gland enlarged and sensitive, the secretion from which contained pus but no gonococci. Urine, cloudy and full of filaments. The treatment consisted of irrigations to the anterior urether of silbamine once daily, and the internal administration of hexamethylene-tetramine. Patient did very nicely for several days, when all at once he developed pain over the right lumbar region and front of the abdomen. Urine at this time contained a trace of blood. I submitted patient to cystoscopic examination, and the following condition was observed: From right ureteral opening, a faint trace of blood was noticed; otherwise, nothing of importance. Suspecting renal calculi, I introduced the cable of the Nephro-phonotoscope and upon attaching the diaphragm I discovered a ureteral calculus about 20 cm. from the ureteral mouth. Directly after the removal of the cable the patient had an attack of renal colic; ½ gr. of morphine was administered and he was removed to his room where he suffered the most excruciating pain for 36 hours; in the meantime everything was done to aid the passage of the calculus—morphine to relieve pain, hot sitz baths, frequent flushing of the bladder and the administering of large quantities of Napa soda, which I consider a first-class diuretic, when taken in large quantities. The concretion passed and immediate relief followed. Three days afterwards I introduced an air dilating cystoscope and removed a small calculus, composition of which was lime oxalite. Since then I have been washing out the pelvis and ureter three times a week with marked benefit to the patient.

The chief preparation of the surgeon, after the acquisition of the knowledge given him in his medical school courses, must be in direct contact with patients.

ANESTHESIA IN EAR, THROAT AND NOSE OPERATIONS.*

By WM. A. MARTIN, M. D., San Francisco.

THE relative safety of the various anesthetics used in the different operations on adenoids and tonsils is one almost impossible to arrive at. In the first place, all anesthetics are dangerous unless administered by a safe man; and furthermore, all anesthetics are dangerous unless pure and fresh.

Statistics are, in this as in other matters pertaining to surgery, illusory. In the first place, we only have a record of the fact that a death occurred during or following the administration of chloroform, gas or ether, as the case may be; no mention is made of the experience of the administrator nor of the purity of the anesthetic employed. The exact condition of the patient is unknown, a very important factor; and finally, but few of the many deaths are reported, as the notoriety is not desirable, especially if there has not been particular attention paid to all safeguards. Statistics as regards the relative safety of chloroform and ether in general, submitted by the anesthetics committee of the British Medical Association, 1900, comprising a minute and careful study of 25,920 cases from reliable sources, show that death occurred from chloroform and chloroform mixtures in 88 cases, a danger rate of .584%; under ether mixtures (gas, A. C. E. and chloroform), .085.

I wish to quote only a few paragraphs from conclusions of the report, some points of which are not generally known, viz.:

"Chloroform is about twice as dangerous in males as in females."

"Chloroform is most dangerous in early infancy and after 30 years; least so between 10 and 30 years."

"In conditions of good health it is very much more dangerous than other anesthetics."

"When danger occurs under chloroform, whatever its exact nature may be, there is abundant evidence that in a large proportion of cases the symptoms that are observed are those of primary circulatory failure."

"Imperfect anesthesia is the cause of a large number of cases of danger under chloroform."

"Vomiting under anesthesia, which may lead to danger, seems to be more frequent under chloroform than under other anesthetics."

"While vomiting is more common after administrations of ether, severe and prolonged vomiting is more common when chloroform has been used."

"Ether, when employed throughout or preceded by nitrous oxide gas or A. C. E. mixture, is singularly free from danger in healthy individuals."

"After-vomiting is more frequent with ether, but it is usually transient."

"Gas with ether, as well as ether, dangers are more common in females, although complications are more frequent in males."

"From the evidence before the sub-committee they are convinced that by far the most important factor in the safe administration of anesthetics is the experience which has been acquired by the administrator. In many cases the anesthetization completely transcends the operation in gravity and importance, and to insure success, particularly in these cases, it is absolutely essential that an anesthetist of large experience should conduct the administration."

The foregoing is taken from the "Reference Handbook of the Medical Sciences," appended to an article by Thomas L. Bennett, whom I also freely quote, and to whom I refer those who wish to go more intimately into the subject of ether, chloroform and nitrous oxide gas.

There is no mention made in the report of other anesthetics, such as bromide of ethyl, chloride of ethyl and methylchloride, and various combinations which in later years have been much used in shorter operations, particularly for the removal of adenoids. These preparations have been much resorted to, especially in France.

In the discussion of the choice of an anesthetic, by the London Society of Anesthetists, in January, 1898, opinions varied, but the majority agreed that the safety depended greatly on the experience of the anesthetist. The one whose opinion interests us most, [1]"Felix Semon, said that in chronic stenosis of the upper air passages chloroform is the preferable anesthetic, as ether increases the dyspnea and the liability to pulmonary complications. In operations for adenoids, chloroform, if well administered, is the best anesthetic. It allows a careful and not too hurried performance of the operation. Some of the fatalities which have occurred in these cases have been due to lack of manipulative skill on the part of the operators."

[2]Malherbe reports 3,024 anesthesias with ethyl chloride without mention of mishap, and claims it is an ideal anesthetic for short operations.

[3]Lermoyez uses ethyl bromide, apparently with equal satisfaction, making claim that if properly administered it is safe.

The latest to be reported from France is somnoform, consisting of 60 parts ethylchloride, 35 parts methyl chloride and 5 parts ethylbromide, used particularly in the practice of dentistry for extraction. It gives from 2 to 3 minutes of unconsciousness.

I have seen no reports of its use in the removal of adenoids; it is said to be safe (the makers claim over 40,000 administrations without accident), and is being used freely by dentists. I have had it administered a couple of times, once for a myringotomy and once for the removal of adenoids. In the first case, it worked admirably, but in the second, there was considerable cyanosis and resistance, which I attributed to the rapid administration and excessive quantity. It gives a longer interval than gas, and allows ample time for a quick removal of tonsils and adenoids.

Nitrous oxide will give only time to remove the adenoid or the tonsils, but for the combined operation it rarely lasts out, although I have succeeded in removing all before patient recovered sufficiently to experience pain.

[4]R. C. Myles makes mention of a death following its use in a man of 35 operated upon for adenoids.

Spinal anesthesia, and rectal anesthesia produced with ether vapor, and other unusual methods, I pass over, as they probably will not be of any special use to those confining their work to the head and upper air passages.

The adenoid operation is of relatively recent development, and the use of an anesthetic has been confined principally to this country and England. My first experience with this operation was abroad, and there the child was firmly held, and the operator did the rest. I was inclined to continue this method after my return, but soon found the American child was quite differently constructed; or probably, to put it better, I was able to follow the child through convalescence. Some children can be operated upon and seem almost insensible to pain, and do not suffer any after nervous disturbance, while others experience severe nervous shock, and are thrown into a paroxysm of fear every time the operator appears before them. For this reason I soon commenced the use of anesthetics. For years I have used chloroform in the majority of instances, and to date have met with but one case which caused me any concern. My assistant is cautious, one of considerable experience, and if he is not willing to undertake the administration of chloroform, I desist. In the case above mentioned, the child had partaken of its usual breakfast, the breathing was unsatisfactory at the start, and the radial pulse was soon indistinguishable. My assistant promptly took the boy by the heels and shook him, and he slowly revived. We undertook the operation a few weeks later, forbidding any breakfast; the same phenomena commenced at the outset,

*Read before the San Francisco Society of Eye, Ear, Nose and Throat Surgeons.

and the anesthetist refused to proceed. I introduced my instrument in the vault of the pharynx and found no adenoids. The obstruction proved to be entirely in the nasal passages.

I had one experience as a student in Heidelberg that is always before me when I have occasion to use chloroform. I was controlling the pulse of a child 14 years of age who was to undergo an operation for tuberculous disease of one of the tarsal bones. The pulse, which was regular and even, gave one accentuated beat and stopped forever. All appliances were at hand, battery, hypodermic of strychnine and artificial respiration were tried and continued for half an hour or more but without avail. It is that positive feeling of your inability to resuscitate when once the heart has failed that makes it so appalling. Ether gives a warning or gives one a chance to attribute the death to some other cause, and thus lightens the burden on one's conscience.

Statistics seem to prove that chloroform is relatively more dangerous in those of lymphatic disposition. Most of these statistics have not taken into account the operation for adenoids especially, and I do not accept the conclusion that children as a class operated on for this trouble are necessarily of a lymphatic disposition. Adenoids in the vault of the pharynx are undoubtedly normal. They are abnormal only when they are large enough to interfere with proper respiration. The enlargement of the cervical glands is the result of infection from the tonsils, either faucial or pharyngeal, and does not occur if early attention is given to the obstructing growths.

On the other hand, strumous, tubercular children and those of syphilitic parentage have enlarged adenoids and tonsils in conjunction with the other glandular affections, and these children should be placed in a class by themselves. Children of this type are always a source of anxiety to me when undergoing anesthesia in any form.

[7]It is a lately discovered fact that operations in the territory of the fifth nerve through some reflex source cause a cardiac inhibition. It has been noticed in dentistry and in frontal sinus operation, and operation on the ear in those regions supplied by the trigeminus. It has been claimed that the application of cocaine to the nostrils will render the use of chloroform more safe, and inhalation of [8]menthol vapor has also been suggested as a measure of precaution. I formerly attributed this phenomenon to the fact that the nostrils were rendered more patent and respiration made easier, but since being conversant with the inhibitory phenomena just mentioned I think that the allaying of the reflex may be responsible for making the operations in this neighborhood more safe.

Undoubtedly chloroform has been used for the adenoid operation in children in a far greater percentage than any other anesthetic. It still seems to be the favorite of most operators, on account of its convenience, quick recovery, less annoying after-effects and of the prevalent opinion that, in spite of the satistical records to the contrary, if properly used it is not more dangerous in children than other anesthetics of equal efficiency.

Deaths are known to follow its use more frequently than reported, so I may say that statistics are of no value. Statistics are made up of reports from public clinics and hospitals where such events are of official record, those occurring in private practice (and there is no operation done more frequently than the removal of adenoids and tonsils in private practice) are seldom reported, and if they do obtain place in statistics they are generally valueless, as the conditions related are shaped to vindicate all concerned. We all know that children operated upon in clinics and public hospitals are in much less favorable physical condition than those operated upon in private practice, although it may be contended that conditions of operation are more favorable. I grant you that such should be the case, but am convinced of the fact that these conditions do not hold.

[7]Hinkel, *New York Medical Journal*, October, 29, 1898, reports the sudden death of a 6-year-old boy after the removal of adenoids. About one ounce of chloroform had been inhaled. He tabulates 17 deaths reported since 1892, while he could only find one death from ether and none from nitrous oxide and ethyl bromide.

[8]Halsted, in a paper read before the American Laryngological, Rhinological and Otological Society, January 1,, 1900, speaks of 3 fatal cases besides the one he reports; while in England, 14 cases were recorded in the previous 5 years.

For operations of short duration I believe that chloroform will continue in favor with the majority of operators until more convincing arguments are brought to bear against its use, than have been up to date.

With the advent of tonsillectomy and adenectomy, which requires anywhere from one-half to two hours or more, the dangers of prolonged anesthesia will come more into account, and undoubtedly ether will be the anesthetic employed.

Of local anesthesia, cocain and less potent analgesics I have not spoken. They do not relieve the pain in the first place, and in the second place they are probably more dangerous than the volatile anesthetics.

[9]Sanford, Mayo Collier and [10]Cline make mention of deaths from convulsions 3 to 4 hours after the use of cocain, and I have seen records of other deaths not alone in this but in other operations of minor import, which have served to banish it from my practice in children.

[11]R. Lehman speaks of what he calls the danger signal in chloroform. He says that if a patient keeps his eyes wide open or partially open during the narcosis, and opens them again whenever the surgeon closes them, some difficulty, either slight or serious, may be expected. This phenomenon was noted 21 times in 329 cases, and in each case there was either excessive vomiting, cessation of respiration, asphyxia, syncope or prolonged excitement.

In closing, then, I shall state my own position as to the use of anesthetics.

First, I prefer chloroform. I have used it without serious mishap in the great majority of operations for removal of faucial and pharyngeal tonsils and in operations which I perform about the head requiring anesthesia of not too long period. I employ a physician whom I know to be careful, a man of experience and good judgment, and follow his advice in all matters pertaining to anesthesia.

Children who have an adenoid alone, or the same with free tonsils, I often operate upon under gas, and will propably resort to somnoform in the future, unless some unfavorable reports shall deter me.

In children of so-called lymphatic temperament or dyscrasia I remove the adenoid under gas and await the improvement that is sure to follow for further operative interference, if I cannot succeed in getting the tonsils by the same procedure.

For prolonged anesthesia, say anything beyond a quarter of an hour, I favor gas followed by ether, and since seeing the easy recovery which has followed the few cases in which I have seen the tube introduced and the stomach washed, I shall be more inclined to adopt this mode of procedure; as the untoward after-effects that have followed many of my operations in the shape of fever, etc., I have attributed to the patient's inability to digest his own blood swallowed during or after operation.

To conclude, I would advise, firstly, to use only a fresh package of whatever anesthetic is employed, and secondly, to employ an experienced anesthetist and free yourself as much as possible from any anxiety relating to the dangers attending anesthesia, as no operator can do good work if he is unable to

devote his entire attention to the operation before him.

1. American Year Book of Surgery, 1900, page 38.
2. Year Book of Nose, Throat and Ear, 1901, page 225.
3. Ibid. page 225.
4. Ibid. " 224.
5. Fetterolf, *Knapp's Archiv. Otology*, April, 1905, page 162.
6. Practical Medicine Series of Year Books, June, 1902, page 92.
7. Amer. Year Book of Surgery, page 491.
8. *Phila. Med. Journal*, Nov. 3, 1900.
9. *Jour. of Laryngology*, Aug, 1894.
10. Year Book of Nose, Throat and Ear, 1901, page 80.
11. American Year Book of Surgery, 1900, page 40.

WHEN TO OPERATE UPON UTERINE FIBROMYOMATA: MYOMECTOMY.*

By ROSE TALBOTT BULLARD, M. D., Los Angeles.

GREAT interest has been shown by the profession in the last few years in the question of the treatment of uterine fibromyomata. The view that women having fibroids are exposed to but little risk by their presence, and that these dangers will disappear at the menopause, has few advocates. Studies tabulating the degenerations and complications which may be expected have taken the subject from a theoretical to a practical ground, where the facts must be faced.

One thousand two hundred and seventy-eight cases from the tables of Martin, Cullingworth, Noble, Scharlieb, Frederick, McDonald and Webster show 31% of degenerations, comprising fatty, calcareous, cystic and myxomatous degenerations, necrosis, suppuration, sarcoma, carcinoma, etc. One thousand and seventy-three cases from the tables of those above mentioned, with the exception of Martin, give 45% of pelvic complications, the majority of which are pathologic changes in the tubes and ovaries. It is recognized that the risk of radical operation in uncomplicated cases is small, 1% or 2%, but that it rises to 10%, 20% or even 30% in the gravely complicated cases. It is evident, then, that delay, with its resulting degenerations and inflammations, is responsible for the high mortality. Besides these local dangers, there are the risks of the cardio-vascular and renal changes, the effects on the nervous system and the grave anemia, which is not easily cured even after the cause is removed. Sterility is a frequent accompaniment, but should pregnancy occur the patient is exposed to risk at every stage.

It is unnecessary to dwell on the symptoms with which all are familiar, but a few opinions from recent medical literature will give the present trend of thought. Dr. C. P. Noble, who has been foremost in advocating surgical interference in all cases, says that "fibroids should be treated from the standpoint of their life history, and not because of symptoms, for it is a fair conclusion that death will result without operation in one-third of the cases, in more than one-fourth there will be chronic invalidism, and of the remainder, about one-third, but few have not been incommoded."

Dr. C. C. Frederick. The possibility of leaving behind a wrecked body after operation, when the patient has previously been an invalid for years, must not be lost sight of. With the exception of small, hard, sub-peritoneal nodules, I believe most fibroids give rise to symptoms, and should be operated upon.

Dr. J. H. Carstens always tells a woman that the tumor must be removed or she will never be well.

Dr. R. B. Hall says that just as soon as a patient begins to suffer at other times than her menstrual periods, an operation should not only be advised, but urged, for there is usually something wrong in the tumor itself or the viscera adjacent that will in the end necessitate operation under unfavorable conditions. Just as long as the profession advises these patients to carry their tumors as long as their condition can be made tolerable, we will witness patients coming to operation after cancer is so far advanced that an operation affords only a temporary respite.

*Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

Dr. E. H. Grandin says any fibroid may become malignant or strangulated, and is likely to do so after the menopause—therefore advise operation, irrespective of symptoms.

Dr. H. N. Vineberg. The general profession should have it more forcibly brought to mind that they cannot promise a cure because the menopause is approaching; often, instead of atrophy and disappearance, the opposite may obtain, and finally operation is necessary after having lived through several years of invalidism.

Dr. T. B. Eastman. In the writer's 43 complicated cases, as well as in those of other writers, it is a significant fact that those complications inherent in the tumor, and which presaged the most certainly fatal results, were of such a character as to preclude positive knowledge, or often even a suspicion of their existence prior to operation, or even a microscopic examination. The general practitioner should at least send the patient to a specialist for an opinion. I would myself operate in every case if the patient would consent.

Dr. Howard Kelly thought it would be unfortunate for the impression to go out that because a patient had a fibroid it was an indication *per se* for operation, as hundreds of women with small fibroids had little or no trouble from them.

Dr. B. C. Hirst thought the conscientious surgeon probably operated upon not more than 20% of his patients. Bleeding, impaction and steady growth indicate operation.

Dr. Edward Reynolds says the possibility of strangulation of fibroids during puerperal involution should be made an element in weighing the question of the removal of fibroids by myomectomy in young married women.

Dr. A. Palmer Dudley believes that more women lose their lives from sepsis due to abortion, complicated by fibroids, than from any other condition due to fibroids.

The presence of a fibroid even of small size, acting as a chronic irritant and thereby predisposing to cancer of the body of the uterus, has been emphasized by Cullen, Noble, Hall and Goffe; the latter has recently referred to the fact as a "convincing argument in favor of removing all fibroids of whatever size or location, except in extreme old age."

It will be seen that opinions vary; few take the extreme ground of operating in every case, but the sentiment is towards operation in all cases in which symptoms occur and on all large tumors, because the risk to the patient from operation is less than that from the tumors themselves. The dangers attending the degenerations and complications associated with fibroids have been forcibly impressed upon me by the last four hysterectomies for fibroids in which I have assisted Dr. Lasher.

1. The removal of the tumor was complicated by a large ovarian hematoma with extensive adhesions. This ruptured during operation, but it did not give rise to sepsis, as in the cases reported by Dr. R. B. Hall; however, it greatly prolonged the operation and increased the risk of the patient.

2. The patient had had a fibroid tumor 7 or 8 years, but was in good health until one and a half years ago, when pain, accompanied by fever, developed in the lower part of the abdomen, and she began to lose weight. At operation the abdominal peritoneum was found adherent over the anterior surface of the tumor, and miliary tubercles were spread over the uterus, tubes, ovaries and part of the small intestines. The tubercular peritonitis was limited to the pelvis and lower abdomen, and Dr. Lasher thinks the irritation of the growing tumor may have been the exciting cause, as the tubercular process was most pronounced on its anterior surface. She left the hospital in 4 weeks, but had an abdominal fistula and a slight afternoon temperature. Her ultimate recovery is doubtful.

3. This patient had been told by her physician that she had a tumor 10 years ago. There had been menorrhagia, which became more severe the last 6 months, and she lost 15 pounds in weight. On making a supra-vaginal amputation a cancer of the body of the uterus was found which extended two-thirds of the way through the uterus. The cervix was also removed, and the patient recovered, but it is probable that she will die from further development of the cancer.

4. There was here an old abscess and degeneration of the left ovary, the walls of which were so friable and pulpy that they could not be completely removed nor the tissues sewed over to control all bleeding, so that it was necessary to place a Mikulicz drain. Her recovery was uncomplicated, although prolonged by the drainage.

Another patient operated upon about a year ago had had a tumor several years, with menorrhagia. She began to have an offensive discharge, and here also was found a cancer of the body of the uterus. A pan-hysterectomy was done, but the patient died on the third day from a pulmonary embolus; diagnosis confirmed by postmortem examination.

These cases all emphasize strongly the dangers of delay. "It would seem more logical to operate early, thus preventing a profound degree of anemia, saving the patient months and years of invalidism, lessening the risks of the operation, and very greatly shortening the period of convalescence afterwards." Early operation also affords better opportunity for conservatism. Kelly says no more important advance can be made by the gynecologist than by extending the indications for myomectomy. A study of specimens removed by hysterectomy not infrequently shows that the tumor might have been removed, leaving the uterus in a normal condition. The importance of the menstrual function and the influence of the ovaries in young women should not be ignored. Many women still suffer after operation, although in other ways, often as severely as from the original malady. Any procedure which will conserve the sexual organs and their functions demands our careful consideration.

The operation of myomectomy has been long recognized as suitable to the majority of sub-peritoneal and sub-mucous fibroids; its application to interstitial growths has also been clearly demonstrated, but the brilliant results following a supra-vaginal amputation or pan-hysterectomy have overshadowed the more conservative operation, and it has not received the attention it deserves. In every patient under 35 years of age, the tumor and its relation to the uterus should be carefully studied to determine whether a myomectomy may be done provided there is not an extreme anemia, ovarian or dermoid cysts, inflammation of the tubes and ovaries, or grave disease of other abdominal or thoracic viscera. The early advocates of the procedure limited it to cases with few growths, and especially directed not to open the uterine cavity, but the investigations of Menge and Krönig have demonstrated that it is free from germs. Cullen says where the tubes and ovaries are normal we may open the uterine cavity, but cautions against doing a myomectomy if the appendages are adherent. He operated upon such a case, there being no evidence of any recent infection; artificial extremities for both tubes were made, and a myoma was removed from the posterior uterine wall, but sepsis shortly developed, and the patient died; hence, the warning. The number of growths need not necessarily prove an obstacle; E. E. Montgomery has removed 20 tumors from a uterus, with perfect recovery. Dr. Carmalt has recently reported the removal of a very large fibroid from the anterior wall of the uterus, where the bleeding was so excessive that more than 50 sutures were necessary in the peritoneum around the base of the tumor before the peritoneum could be incised for its enucleation. The patient had refused absolutely to consider hysterectomy. One year later she was delivered of a 10-pound boy. Cases of pregnancy following myomectomy have been reported by Kelly, Noble, Schauta, Olshausen and others.

I would not underestimate the gravity of the operation. The English consider it a very dangerous one, and think none but the most expert should attempt it. Kelly says the indifferent operator whose technique is slipshod will inevitably lose many patients from hemorrhage and sepsis. Montgomery says a stormy convalescence may be expected, because in the enucleation of a number of single growths there is a large amount of tissue of low vitality which is readily infected, and an accumulation of blood in dead spaces from which the patient runs an increased danger. McCosh says for 4 or 5 days after operation the patient's temperature is apt to be about one degree higher than after hysterectomy.

It is true also that where there are multiple fibromata one cannot give the same absolute assurance of cure that one can after a hysterectomy; yet this possibility after a careful search is rather remote, and should not discourage resort to myomectomy where the other conditions are favorable, for these reasons:

1. It removes the disease without the uterus.
2. It avoids menstrual disturbance and an artificial menopause.
3. It allows conception.
4. It does not cause the mental distress which accompanies removal of the uterus.

The last mentioned reason was the determining factor in the choice of operation in the following case:

Miss M. L., a dressmaker, aged 35, consulted Dr. H. G. Brainerd because of an intense pain in the head, fearing that there was some disease of the brain. On account of the history of menorrhagia, he referred her to me January 29, 1904. History and condition: First menstruated at age of 16, always freely. For 4 years the flow has been increasing. There are cramps and a feeling of weakness at the beginning. The flow now appears every 21 days, and is excessive for 6 days. She is anemic, nervous and depressed. Hemoglobin under 50%. Local examination, made with difficulty, revealed a uterus about twice the normal size. A curettement was done February 10th. Few scrapings were obtained, but the suspicion as to presence of fibroids was confirmed, and our efforts were now directed towards building the patient up by rest, forced feeding and tonics, controlling the menstruation slightly by cotarnine hydrochlorat and ergot. By May 1st the hemoglobin had reached 60%, and she was feeling much better. A radical operation was now urged, and a reluctant consent was obtained with the condition that the uterus was to be left if possible.

May 14th, with the assistance of Drs. G. W. Lasher, Nannie C. Dunsmoor and F. D. Bullard, a myomectomy was done, removing 22 small tumors. On first exposing the uterus it appeared irregularly nodular, about 3 times its normal size, and not at all a favorable case for myomectomy. Remembering the patient's dread of hysterectomy, Dr. Lasher encouraged me to do as I had promised. There were a few very small sub-peritoneal nodules, but the larger and medium-sized tumors were interstitial, one or two at each cornu, one very low on the posterior and another in the same position on the anterior wall, the cavities of which were especially difficult to close. After those tumors apparent to sight and touch were removed, the anterior wall of the uterus was opened from cervix to fundus, and the largest two of the tumors were found to be sub-mucous with several of the smaller ones. These were easily removed, the cavity of the uterus wiped out, a gauze drain passed through the cervix into the vagina, and the incision in the uterus closed with No. 2 catgut sutures passed through the wall but not including the mucous membrane. A few superficial catgut sutures closed the peritoneum, and a small, disfigured but symmetrical uterus was allowed to fall back into the pelvis. Convalescenee was without event until the eighth day, when the temperature rose to 102°. This was possibly caused by a little discharge retained in the uterus, for a small amount escaped that night (there had been no drainage), and the temperature did not rise again. She left the hospital in 3 weeks. This was a case of marked anemia with weakened nervous system, and will require many months to regain a normal condition of health; however, she began dressmaking in October, and has been sewing every week day since. She now menstruates at an interval of from 21 to 25 days, the flow lasting 3 days, and the total amount being not much more than she formerly lost in 12 hours; there is no pain. I am sure she is much happier in the knowledge that she is a normal woman than she could have been with the uterus removed, even though she was "cured." We feared that in the depressed mental condition a hysterectomy might induce melancholia. The results have proven the wisdom of the choice of the more difficult operation.

A favorable case for myomectomy presented itself recently in Dr. Lasher's practice. A tumor about the size of a small fist was discovered in the abdomen; it was freely movable, and could be placed well out on either side or above the umbilicus, but when left at rest it would settle back towards the pelvis. Dr. W. A. Edwards assisted at the operation. All thought it was of pelvic origin, with a tentative diagnosis of dermoid or fibroid of the ovary. It proved to be a sub-peritoneal fibroid of the uterus, with a fleshy pedicle about one and a half inches long; there being no inflammatory condition about the uterus, the whole organ had been carried up with the tumor in its excursion. A cuff of peritoneum was turned back and the pedicle cut through. The fibers retracted, leaving a depression in the anterior wall of the uterus, and showing that the pedicle had been formed at the expense of the muscular wall. Deep sutures were needed to

control the bleeding. The patient left the hospital in 2 weeks in excellent condition.

After a careful study of the conditions accompanying fibroid tumors, I am forced to favor early operation in any woman with a tumor presenting such symptoms as would warrant a pelvic examination; in the young, because of sterility or of the dangers incident to child-bearing, besides the systemic changes and invalidism which may be expected; near the menopause, because of the degenerations which so frequently occur.

I would urge that in all cases, the patient being under 35 years of age, where there are no constitutional contraindications and no inflammatory disease of the appendages, that a myomectomy be considered and carried out, if possible.

DISCUSSION.

Dr. W. F. B. Wakefield, San Francisco. I heartily agree with the opinion expressed by Dr. Bullard in her excellent paper. We have been generally taught to believe that these myomatous growths of the uterus were very simple in their histologic construction and very benign in their constitutional effect, being simply a mass of non-striped muscular fiber likely to disappear at or near the menopause, and only occasionally requiring to be removed because they have produced excessive hemorrhage or grown to an unusual size. Such has been the opinion that has very generally prevailed regarding these tumors, and, I regret to say, such is the opinion that still prevails in the minds of many.

When S. E. Gordon of Portland, Maine, at the meeting of the American Gynecological Society in 1893, gave voice to the opinion that the sum total of woman's life, health and happiness would be vastly improved if every uterine myoma was removed as soon as discovered, he created a perfect furore in the ranks of the gynecologists, and subjected himself to scathing criticism. I am about prepared to agree with Dr. Gordon. I think were Dr. Gordon to repeat this opinion now he would meet with less criticism.

Dr. Bullard has carefully reviewed for us the excellent publications of Noble, Cullingworth, Frederick and others, in which our attention is forcibly drawn to the many degenerative changes which may occur in connection with uterine myomata, and particularly is our attention drawn to the increased relative frequency of adeno-carcinoma of the body of the uterus associated with these growths. Issue has been taken to this statement on the ground that a tumor of the connective tissue variety could not be a factor in the production of an epithelial neoplasm. Such a view seems to me untenable if we still hold to the belief, as I think most of us do, that local irritatiou of various kinds plays an important etiologic role in the production of epithelial growths. It seems to me that, from the recent investigations and published reports regarding the remote results produced by uterine myomata, we are forced to the conclusion that women suffering from these neoplasms become afflicted with adeno-carcinoma of the body with much greater relative frequency than would obtain in the same number of women of the same age and walk of life whose uteri were not the seat of myomatous tumors.

I think we must change our views regarding the innocence of these uterine tumors, and I believe that the profession as a whole is being rapidly converted to the belief that these growths are far from being harmless, and, in fact, when we consider the necrotic, septic and malignant degenerations that may take place in the tumor itself, as well as similar changes that may occur in the surrounding viscera, due to the presence of these tumors, to say nothing of the cardiac and renal changes which may result from their long-continued presence, we must look upon the uterine myoma as a very decided menace to the life and health of the woman possessing it.

I am impressed with the frequency of ovarian hematoma associated with uterine myomata, and am surprised that Noble, in his 1188 cases, reports only one case, that case occurring in Frederick's statistical review of his 125 cases. Dr. Bullard reports the occurrence of ovarian hematoma in one of the 5 cases recorded by her. Lauwers encountered 11 cases in 150 operations for uterine myomata. Rufus Hall calls our attention to this same condition. He believes it to be produced by pressure upon the ovary due to its imprisonment below the tumor, but I rather think that the condition is produced by secondary degenerative changes in the ovary itself, and am led to this belief by the fact that I have seen a good-sized hematoma of the ovary associated with a simple hyperplasia of the myometrium, accompanying which were the ordinary circulatory disturbances that characterize myomatous tumors.

PARA-TYPHOID INFECTION.*

By E. W. TWITCHELL, M. D., Sacramento.

IN 1896, Achard and Bensaude found in the pus of an inflammatory process at the sterno-clavicular joint, following a continued fever of several weeks' duration, an organism similar to those of the colon group, and designated the diseased condition in question para-typhoid. Interest being awakened, reports of cases accumulated, until at the present writing para-typhoid infections may be regarded as having an assured place in pathology.

Widal and Nobécourt in 1897 recovered from the thyroid gland a bacillus apparently identical with that of Achard and Bensaude, calling it the paracolon bacillus. In the same year, Gwyn of Osler's clinic came upon a case in clinical features undistinguishable from common enteric fever, but whose serum persistently failed to agglutinate cultures of the *bacillus typhi;* a bacillus was found in the blood, however, which was agglutinated by the patient's serum in a dilution of 1-200. In 1901 Schottmüller reintroduced the name of para-typhoid bacillus, originally proposed by Achard and Bensaude, and this continues to be the preferred designation.

Schottmüller reported two distinct bacilli having much in common, each, however, refusing to be agglutinated by sera coming from patients infected with the other. These two bacilli were called respectively *Bac. Paratyphosus A* and *Bac. Paratyphosus B,* names corresponding to the *Bacilli Paratyphi a* and *b* of Buxton. They belong to the group which includes the bacilli of meat poisoning, the bacillus of hog cholera, etc. They ferment glucose like *Bac. Coli,* but like *Bac. Typhi* do not form indol or gas in lactose.

The infection is widely distributed geographically, cases being reported from most of the European countries, from South America, from the Philippines and from various points of the United States. Series of cases in a neighborhood or in a single family are common.

Pathology. The spleen is, as a rule, enlarged. The intestinal changes of typhoid were wanting in patients coming to autopsy, but the occasional report of intestinal hemorrhage, and the marked diarrhea now and then noted, would indicate that the bowel is not exempt in all cases. Ophüls has suggested the cases of typhoid without intestinal lesions may have been cases of para-typhoid. A feature of interest is the wide distribution of the bacillus in the organism, it being found in nearly all organs and tissues. This explains the extraordinarily large percentage of complications and sequelæ.

As to the comparative frequency of the two infections, by far the greater number of cases reported were of infection with *Bac. Paratyphosus B.*

Symptomatology. Clinically there is but little difference between para-typhoid and typhoid. The classic features of true enteric, nosebleed, roseola, splenic enlargement, diarrhea, tympanites, delirium, continued fever and Diazo reaction may all be present. It is usual to remark that the course is generally shorter

*Read by Title at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

and milder than that of typhoid, but upon reading reports of cases, one is impressed with the frequency of complications and their variety and severity; abscesses of various glands, purulent arthritis, osteomylitis, pleurisy and orchitis are but instances.

It is too soon to say whether or not one attack confers immunity, as is the rule in typhoid, and apropos of this, Coleman suggests that so-called reinfection with typhoid may be a typhoid infection followed by a para-typhoid or vice versa. A recently reported case shows the probability of simultaneous infection with *Bac. Typh.* and *Bac. Paratyph.*

Diagnosis is possible in two ways only, and more likely by one—agglutination and cultivation from the blood of patient. The recent work of Grünberg and Rolly has shown how untrustworthy the agglutiuation test may be.

There remains, therefore, only cultivation of bacilli from the blood or other portions of the organism, and here, if examination is too long delayed, one may fail, for the blood which may be full of bacilli in early stages of the disease may be sterile later.

MESENTERIC THROMBOSIS; REPORT OF CASE.*

By DAVID A. CONRAD, M. D., Santa Barbara.

THE FOLLOWING case is of interest from its clinical course, condition found on exploratory laparotomy, and final autopsy findings:

The patient was a male, 19 years of age, family history negative. No venereal history. History of illness some months previously which was considered as appendicitis by the attending physician.

The present illness commenced with pain in the right side of the abdomen, with general symptoms suggestive of la grippe. His temperature continued high, and some days later a few rose spots made their appearance on the abdomen. About this time there was a considerable hemorrhage from the bowels, and it was considered to be probably typhoid fever. The abdominal symptoms cleared up, and there were no serious symptoms. The temperature continued high with morning remissions.

On February 19th I first saw the patient with Dr. Flint. His temperature was 103.4°. He complained of pain and distress in the abdomen. Bowels were constipated. Abdomen was slightly distended, regular in outline and tender transversely below the umbillicus. The point of maximum tenderness was at the left margin of the epigastrium, extending from there to the spleenic region. Superficial and deep palpation of entire abdomen revealed nothing adventitious, pain being excessive only as before mentioned. Conditions in right illiac fossa seemed normal. Leukocytes 28,000. On February 22d he was removed to the hospital. His condition at this time was about the same. The point of maximum tenderness had shifted to the epigastrium. The liver was not enlarged, but was tender over its entire anterior surface, and particularly over the left lobe. The spleen was slightly enlarged, and there was some dullness in the upper portion of the left flank. His temperature rose to 103° in the afternoon. Perspired freely, and had one or more chills daily. Bowels moved freely with the aid of cathartics. Early in the disease free catharsis always ameliorated the abdominal symptoms. Urine negative, with the exception of indican.

It was clear that pus was present in the upper portion of the abdomen, but the difficulty lay in localizing it.

On February 23d we decided to make an exploratory operation, having the idea that there might be a subdiaphragmatic abscess in the neighborhood of the spleen and extending over the left lobe of the liver. A green soap poultice was applied to the abdomen. On the 24th he felt so much better that we decided to postpone the operation. The tenderness had diminished considerably, and he wanted for the first time to move about in the bed and read. Alcohol compresses were applied, and he rested easily. On the 25th he again complained of severe pain, tenderness again very great over left lobe of liver and in the region of the spleen. It was greater generally in the upper portion of the abdomen. Distension was considerable, with areas of tympany and of comparative dullness. Bowels moved with the aid of enema or cathartics. He continued in very much the same condition, with the exception that he had no more chills, and temperature was lower. At times he would be quite comfortable, at others he would complain of severe colicy pain. He liked to have a pillow on his abdomen, stating that the pressure made him more comfortable.

On March 6th an exploratory operation was done, as his condition did not improve. Median incision in the epigastrium. On opening the peritoneal cavity a large quantity of dark red serum escaped, and a mass of greatly distended intestines presented; they were lustreless, dark red in color, the veins were of large size and greatly distended with dark blood. There were no signs of peritonitis in the neighborhood of the incision. The surface of the liver was smooth, and it was not enlarged. There was nothing abnormal in the region of the spleen. There was a small amount of lymph attached to the intestines in places; it was soft and gelatinous. Below and to the left were a few adhesions. On the posterior wall of the abdomen there was a firm body extending from the region of the spleen towards the right transversely, considered pancreas. Owing to the great amount of distension, all manipulations were extremely difficult. No condition to account for the obstruction to the mesenteric circulation could be found in the upper part of the abdomen. The case was considered as one of mesenteric thrombosis, and not amenable to further operative procedures. As the original trouble was apparently in the appendix, this region was explored through a small incision, but with negative result. Incisions were closed and patient returned to bed in good condition. He seemed more comfortable for a short time after the operation, but his condition steadily grew worse. On the 11th, vomiting commenced, gradually increasing in severity. The howels moved by enema. Death occurred on the 14th from exhaustion.

Autopsy. Body was greatly emaciated. The two operation wounds in the abdomen were in a healthy condition. Abdomen opened by median incision. On opening cavity a large amount of odorless, blood-stained serum escaped. There was considerable lymph scattered over the surface of the intestines. The small intestine was very dark red in color, in contrast to the colon, which appeared pale. The sigmoid flexure appeared to be on the right side, but this was found to be due to its great length and distension. The liver showed very slightly below the margin of the ribs. In the left hypochondrium the intestines were matted together in a large mass, but were easily separable. The mass was covered by great omentum. On separating the coils a foul thick pus exuded, which seemed to have its origin in the mesentery. On raising the stomach, pus escaped posteriorly, and was seemingly contained in the folds of the mesentery. The abdomen was otherwise free from peritonitis. The stomach was dilated, and contained a large amount of fluid.

Spleen slightly enlarged. Kidneys normal. Hypostatic pneumonia of lower lobes of both lungs.

On incising the liver, left lobe, pus escaped, and on examination was found to extend from mesenteric fold to transverse fissure, thence into substance of liver. Gallbladder normal. Further incisions revealed the liver to contain a mass of thick, foul pus radiating in all directions, so much so that there was comparatively little liver tissue left. The path taken by the pus was evidently through the transverse fissure, behind the peritoneum, and into the folds of the mesentery. The mesenteric veins were occluded by a soft, loose thrombus; the portal was free.

Examination of intestines from stomach to rectum showed no ulceration. Appendix adherent, small, no signs of recent affection.

Smears were taken from the pus and showed a small bacillus very like the colon bacillus. No others were found. Cultures were unfortunately not made.

The case presents two interesting conditions. There can be but little doubt that the suppuration in the liver was a suppurative cholangitis, that it found vent at the entrance of the hepatic vessels and burrowing between the layers of peritoneum caused the thrombosis of the superior mesenteric vein. From the history I am inclined to consider it as a typhoid or colon infection. In the limited amount of literature at hand I can find no reference to a similar condition.

Mesenteric thrombosis, however, is a condition that is met with not infrequently. In the present case its symptoms were masked by, and masked in turn, the symptoms of the abdominal abscess, yet there were many that were characteristic.

This condition is fortunately of rare occurrence, as it is one of the most fatal of abdominal affections. As we would expect in the organs affected, the symptoms are very complex and not well differentiated, having many points in common with other abdominal affections and oftentimes disguised by those of the primary lesion which is the cause of the thrombosis. A very extensive description is given by Jackson, Porter, and Quinby in the *Journal of the American Medical Association* for June 1904, *et seq.* In an exhaustive analysis of 214 cases, they point out the difficulties connected with its diagnosis and treatment. Since that time I have noticed a few cases referred to, generally a complication of other conditions.

The condition was first described by Virchow in 1847, but was not completely described until 1875,

*Read before the Santa Barbara County Medical Society, July 10, 1905.

when Litten published an article depicting its clinical features. Both the artery and vein may be affected, or but one. The symptoms are similar in either case. The pathological changes are those of hemorrhagic infarction depending on the degree of occlusion and its rapidity. Grouping the symptoms as in other abdominal affections, and considering the most prominent and constant, we find as we would expect, pain, vomiting, tenderness, distension, constipation or diarrhea, and temperature.

Pain is very constant, being absent in but 8% of the cases analyzed. Its nature is variable. In a majority of the cases it is general, in others it is distinctly local. It is apt to be constant, with very sharp, colicy exacerbations. In this case it was peculiar in the fact that the patient seemed to derive great relief from pressure on the abdomen. It is apt to be sudden in onset, and may be distinctly remittent. Vomiting and nausea may or may not be present, depending on the severity of the process. In some cases constipation is the rule, in others diarrhea; neither is characteristic. The stools may be normal for a time, then followed by the passage of blood. In about 40% of the cases blood appears in the stools at some time.

Tenderness is generally well marked. It may be general or local, more intense at places, or shifting. It is frequently modified by the primary lesion. It is apt to appear late, and is a sign of increasing severity. Temperature may be subnormal, but may be raised owing to complications. Leukocytosis has been found in uncomplicated cases.

Distension takes place early. In conjunction with effusion, which is always present, it may give areas of tympany separated by those of comparative dullness, where the distended coils press closely against the anterior abdominal wall.

As in other conditions it is very seldom that we have all these symptoms well marked. They may simply be those of intestinal obstruction, or they may be completely masked by those of another lesion.

Prognosis is very grave, most of the cases are definitely recognized only at autopsy, or on opening the abdomen for some other cause. There is no hope of collateral circulation being established, and the gangrene which ensues is fatal.

Treatment is very unsatisfactory. It presupposes treatment of any original lesion, then excision of the portion of intestine affected, if not too great. This is a very difficult procedure owing to the amount involved, and to the low condition of the patient. Jackson, Porter and Quinby advise an exsection of the affected part, to be followed by the bringing of the ends out on the abdominal surface, creating an artificial annus, relieving distension and saving much time. Should the patient gain, subsequent closure is a comparatively easy matter.

A New Journal.

We have received Vol. 1, No. 1, of the *State Board Journal of America*, issued in September, 1905. The objects of this publication seem to be devoted to the interests of licensing boards of medicine, dentistry and pharmacy, and will doubtless be of much interest to students and to colleges. All of the information contained in the present number is devoted to matters pertaining to examinations, etc., and the examination questions of quite a number of examining boards are given. The idea is certainly ingenious and doubtless this journal will fill a certain field of usefulness.

Education in the Orient.

Among its miscellaneous minor articles, *The Open Court* for October contains three which deal with the problem of education as it is presented in different parts of the Orient. One describes the new elementary text-books which are to introduce modern ethical principles into the minds of the youthful Japanese.

STATE CONTROL OF TUBERCULOSIS*

By CHAS. C. BROWNING, M. D., Monrovia.

IT IS NOT my purpose to attempt an exhaustive discussion of the subject, but to call attention to a few salient points. I assume, without discussion, that the state should undertake to control the spread of tuberculosis, and to do this it is necessary to exercise more or less control or direction of the individuals suffering from the disease and provide for their care.

There is, and there will probably continue to be, considerable diversity of opinion in regard to the degree of interference with personal liberty which is necessary or advisable in our attempts to control the spread of tuberculosis, and of the requirements which may reasonably be exacted of those who sustain certain relations to them. The discussions regarding the nature of the disease and the manner of its communication, which have occurred during the past quarter of a century between members of the medical profession, have been watched with unusual interest by the general public, on account of the prevalence of consumption, and the attitude has varied from that of incredulity, almost amounting, at times, to derision, regarding the communicability of tuberculosis, to the most intense phthisiophobia, in many instances of late years, imposing many inconveniences and hardships, at times amounting to little less than cruelty, to sufferers from this disease.

Progress in all branches of science is slow, and inference drawn from a little knowledge is apt to produce an extremist. This has been exemplified in regard to the subject under discussion.

The cause of tuberculosis has been exhaustively studied, and the following facts established beyond reasonable controversy, to wit: Tuberculosis is a disease communicated from man to man, most frequently by means of dried sputum or droplets containing tubercle bacilli, thrown out by coughing by the consumptive. This being true, the prevention of these organisms finding lodgment in soil suitable for their development will solve the problem.

One of the most important steps is education. Much has been done in this way, and much remains to be done (some undone). It is the duty of the state directly and through the political subdivisions to assist in this work of education; or, rather it should be the province of the state to direct this work.

It is now quite universally accepted by the people at large, that consumption is communicable, and very exaggerated ideas of the dangers of the presence of a consumptive patient are quite generally entertained. The publication of articles in the popular periodicals is responsible to a considerable degree for this. Many of these articles were not written by physicians. While they have been of service in awakening an interest in this subject, and I believe much good has been accomplished, it is to be regretted that the information given has not always been in accordance with established facts. Unfortunately, physicians have at times fostered these ideas.

The ignorant and careless consumptive is dangerous; the enlightened and careful consumptive is not.

To place in the hands of the people reliable information regarding this and other phases of the subject on which the people should be informed is, we believe, clearly within the province of the state, and information emanating from or coming with the approval of the state authorities will, or should, command respect from the people and inspire a degree of confidence which cannot otherwise be obtained.

The circulars issued by the State Board of Health during the past year are valuable, and should reach not only the health officers of the state, but every physician and school teacher in the state. (Here I beg to make acknowledgment of having been

*Read before the California Public Health Association, Riverside, April, 1905.

favored with copies.) I believe that great good can be accomplished, far surpassing the cost of printing and distribution, by having them reach the homes of as many citizens of the state as possible. This could be accomplished in a most effective manner through the schools, at a nominal cost for distribution. Can it not be done? At the same time such other literature regarding public sanitation as is deemed desirable could be distributed.

Another channel through which many who might be missed by the above is through the different labor organizations. The members of these organizations furnish many victims of this disease, who, with their families, sooner or later become beneficiaries of the relief funds of the organizations or the state. In connection with this, I desire to mention workingmen's insurance against sickness, accident and death, under the supervision of the state along the general lines which have proven so satisfactory in Germany. A discussion of this would require more time than I have at my disposal, but I recommend it to your careful consideration.

These organizations have found it profitable to educate their members in regard to sanitation and preventive diseases, including tuberculosis; also, to establish places where they may be treated before the time that a reasonable probability of cure may have passed.

This brings us to consider the establishment of State Sanatoria for the care of tuberculous patients. That a bill was passed by our last state legislature, providing for the establishment of a State Sanatorium for the Treatment of Curable Cases of Tuberculosis is, I presume, well known to all of you. This bill was prepared by the Committee on Tuberculosis of the State Medical Society and a committee of the California Club of San Francisco. It was introduced into both houses—in the Senate by Ralston, where it became No. 706; in the Assembly by Drew, where it became No. 867. In both houses it was referred to the Committees of "Public Health and Quarantine" and "Finance," and in each case it was recommended that it "Do not pass." Notwithstanding this, it passed the Senate without an opposing vote, and the Assembly with but six votes against it. It had the endorsement of numerous influential organizations throughout the state. It failed to become a law by the expiration of the time limit, without having received the signature of the Governor, for the reason, as given by himself, "I found that it was quite out of the question to find money to meet the proposed appropriation. The legislature appropriated several hundreds of thousands of dollars more than the revenues of the next two years are expected to produce, and there was nothing to do but to make reductions where reductions were possible. As the state sanatorium appropriation was only to establish a new institution, I thought it would have to give way to the necessity for providing adequately for the institutions which we already have."

While I am not disposed to censure the Governor or call in question the wisdom of his action, under existing circumstances, I confess to a disappointment that such action was deemed necessary. The task of the Governor is not at all times an easy one. He is called upon by the progressive element to make the improvements they and he know should be made, and at the same time is subjected to criticism by all for an excessive tax rate. If new institutions cannot be established without interfering with the adequate support of those already in existence, we must cease to establish new ones, provide more funds, or alter the system or extent of support required by those we have. I believe, without trespassing on your time for discussion, that the establishment of such an institution is demanded in the near future on account of economic considerations, independent of any sentimentalism or demand from a humanitarian standpoint which may be associated with the subject.

I have thought for several years that the state is supporting—or practically so—a large number of persons in our insane asylums which it should not be called upon to do. I can see no more reason why the state should support a person possessed of property who is insane than a person suffering from any other form of disease. If the state will offer proper encouragement, surrounded by proper safeguards and restrictions, private institutions will be established that will care for many of these patients to better advantage than they can be cared for in a state institution, where all classes are received and associated together, and those who are indigent and remain in the state institutions will also gain by the change. I believe the money thus saved can be expended to better advantage to the state and humanity in caring for hopeful cases of tuberculous poor. I would not take away one cent or remove the most remote factor which would aid in the recovery of an insane patient, but I believe such segregation would increase their chances of recovery; and if the change should in any way aid in the care of the tuberculous poor, much would be accomplished. The relation of tuberculosis and insanity may well be considered in this connection, but time forbids.

Improved facilities for the early detection of cases of tuberculosis and their proper care in our public institutions should be established. With proper care in these institutions, where the direction of the inmates is absolutely under the control of the authorities, a case of infection should not occur, and a large per cent of patients in the first stages should be cured. Large buildings illy constructed, overcrowded, the incompatibility of warmth during cold weather, proper ventilation and economy (which is doubtful), unwholesome and insufficient food—insufficient number of medical staff are among the obstacles to be surmounted before a realization of this condition can be hoped for.

Among the excellent measures which became laws through the acts of our legislature during the last session were the ones giving increased power to our State Board of Health:

> It shall maintain a bureau of vital statistics under the supervision of its executive officer, where shall be collected and recorded all births, marriages and deaths, burials and cremations within the state. These statistics, together with the number of cases of communicable diseases, and such further comparative statistics and information as may be deemed of value to scientists, the medical profession, the general public and aid in the maintenance of good health conditions, may be published by the board in such manner and at such times as it may deem proper.

This, I take it, will allow them, at their discretion, to cause cases of tuberculosis to be reported to the proper health authorities, together with such other information as they may deem advisable for the best interest of the patient and the community at large; and will also empower them to formulate and enforce such rules as they may deem proper. That such laws have proven efficient in other states is now beyond dispute. New York, which started with encouraging voluntary report of cases, and later making reports compulsory, reports most encouraging results. These rules can be so formulated as not to be objectionable to patients or physicians in charge and yet be efficient. It is to be hoped that our State Board will have sufficient funds at its disposal to enable it to avail itself of its privilege and take similar action.

In closing, I desire to call attention to one point which, while not new, has not received the prominence it deserves by writers of literature which is to go into the hands of the general public, viz., the benefit which the patients derive from the careful destruction of their sputum. The literature teems with pleas for the public. What is of greater importance to the patients is their individual interests. Impress upon them that they are the ones who are most liable to be injured by reinfection through carelessness with the discharges, on account of their weakened condition and consequent reduced powers

of resistance, and a new interest has been awakened. I believe that many patients are deprived of opportunity for recovery by their own carelessness by keeping the air, especially in their sleeping rooms, continuously infected with dust from the dried sputum, by the use of cloths, which for convenience are kept about the bedding, or by attempting to expectorate into receptacles placed beside their beds, a portion of the expectorate being thrown on the floor, where it dries. Impress on them the danger to themselves and the precautions necessary to protect themselves, and if this can be accomplished, incidentally the public will be protected.

If the patient is indifferent to his own interest, there should be means to enforce the rights of others.

Death of Dr. Mules.

Dr. Philip Henry Mules, widely known as the originator of the "Mules Operation," died at his home in Greasford, England, last month. Dr. Mules was a very enthusiastic oculist, and was devoted to his profession and his professional work. In his home sphere he was highly esteemed and loved, and his death will undoubtedly be keenly felt.

Dr. Mules' son, Dr. J. H. Mules, is practicing medicine in this state at East Auburn, and is Secretary of the Placer County Society.

Death of Dr. Todd.

The members of the Society will learn with deep regret of the death of Dr. Thomas Milton Todd at Auburn on the 15th of September. Dr. Todd was for many years a member of the State Society. He located in Auburn in 1871, and in 1875 was appointed physician and surgeon to the County Hospital, a position which he held until his death. Dr. Todd was, for most of his professional life, in Auburn, closely associated with Dr. Rooney, President of our Society.

Cheap Fees.

Dear Dr. M: Your letter enclosing application for appointment as Medical Examiner, with our rates struck out, received.

Would say in reply that we shall be compelled to get along without your services. The rates given on this blank are the rates made by the Board of Directors, and we have no authority to change them. If a physician does not wish to do the work at our rates we are compelled to find someone who will.

At the present time there is so little difference in the schools, as far as ability or educational knowledge is concerned, that we are disposed to accept work from a man of any school, whose standing in the profession and community is satisfactory.

Therefore, as it seems your Society is not disposed to allow the members to work at our rates, until such time as the Board of Directors see fit to change these rates we shall be compelled to look elsewhere for our Examiners. Thanking you for your frank letter, we are, Very truly yours,

—— ————, Medical Director.

Typhoid vs. Tuberculosis.

J. A. Wyeth, New York (*Journal A. M. A.*, May 6th), gives notes of two cases of tuberculosis in which the disease appears to have been arrested or cured by the occurrence of typhoid fever. In both cases there was a marked increase of body weight, together with the disappearance of the symptoms of the tuberculous disease. Both have remained well for about four years since the typhoid attack. Dr. Wyeth is indebted for the notes of these cases to Dr. Francis W. Gallagher of El Paso, Texas, to whom he refers inquirers for further information. He asks, however, whether there might not have been in these cases an antagonism between the typhoid and the other pathogenic germs, and hence a suggestion of another possibility of immunity from the dreaded scourge of tuberculosis.

COUNTY SOCIETIES.

Alameda County.

The Alameda County Medical Society held its regular monthly meeting on September 18th.

Dr. C. H. Dukes read a paper on the "History of Puerperal Sepsis," outlining the development of our knowledge of this subject from the time when its contagious nature first began to be recognized early in the ninteenth century, through the disputatious middle portion of the century, down to the period of complete acceptance by the medical world of the theory of infection and contagion in this condition.

Dr. E. N. Ewer read a paper on the "Treatment of Puerperal Sepsis," in which, after discussing briefly the pathology of the conditiou, he described at length the treatment advocated especially by Pryor, curetting of the uterus, packing the uterine cavity with iodoform gauze, opening the posterior cul-de-sac and drainage of the pelvis by iodoform gauze packed about the infected uterus. He stated his belief in the efficacy of curettement in most of these cases, provided that it was gently and carefully done, using only sufficient force to remove with a blunt curette blood clots and debris together with the superficial necrotic layer of the endometrium. Rough curettement deep into the uterine tissues did more harm than good. Illustrative cases were cited, and Pryor's method of treatment warmly commended.

The discussion of the papers was very full and free, too much so for a detailed report. The consensus of opinion, however, was strongly in favor of the Pryor method of treatment. Several cases were cited of patients profoundly septic who recovered after vigorous treatment along this line with free use of saline solution and stimulation. No patient with puerperal sepsis should be despaired of, as apparently hopeless cases result in recovery at times, if treatment is vigorously pushed. Several speakers laid stress upon the prophylaxis of puerperal infection by careful attention to all the details of aseptic midwifery, but even with the greatest care, sepsis will occasionally occur. A certain proportion of these cases, however, would be prevented if obstetricians made a routine examination of the patient during pregnancy for possible sources of infection in the woman herself, and instituted proper treatment for such as were discovered.

Through the efforts of the Legal Committee of this Society and the aid of local physicians, illegal practitioner Clark, of Haywards, was recently convicted and fined $100.

T. C. McCLEAVE, Secretary.

Napa County.

Napa County Medical Society met in St. Helena on September 26th, 8 P. M.

The paper of the evening was "Studies in Psychology," by Rev. Father Jos. F. Byrne of Napa (no discussions), who was later elected an honorary member. Several interesting clinical cases were reported by members present.

Dr. Morton gave an interesting talk on County Societies and on the method of sterilizing gloves and hands for surgical operations.

Society adjourned at 10:45 P. M. to partake of a raviola supper.

Members from Calistoga, Napa and St. Helena were present.

J. L. ARBOGAST, Secretary.

Orange County.

The Orange County Medical Association held its regular monthly meeting October 3d, with ten members present. The following amendment to the by-laws was adopted:

"Any member of this Association who violates the Code of Ethics of the American Medical Association, engages in irregular specialties, advertising, lodge

or other practice which is contrary to the regulations of this Society shall be deemed guilty of a professional misdemeanor, and shall be subject to discipline according to Article VII of the Constitution of this Association." (Article VII provides for expulsion, suspension or reprimand.)

Dr. Freeman of Fullerton presented the paper of the evening, entitled, "Chronic Catarrhal Gastritis in Infants," which provoked a spirited discussion.

H. S. GORDON, Secretary.

Riverside County.

The Riverside County Medical Society met in regular session at the home of Dr. W. W. Roblee, October 9th, at 8 P. M.

After the regular business the members listened to a very able paper on rheumatism by Dr. Roblee, which put it clear to the physician that he must be sure of his diagnosis before treating all pains and throbs in the various parts of the body as rheumatism. That we must not expect happy results from the administering of anti-rheumatic remedies to patients suffering from arthritis deformans, pleurisy, gout, trauma, or a dozen other conditions which may simulate rheumatism.

Dr. O. J. Kendall read a paper on "Tuberculous Peritonitis," bringing out many valuable points to be carefully observed in the management of such cases.

The Society was then invited to the banquet hall where we certainly did justice to the bounteous good things prepared by Mrs. Roblee.

With a vote of thanks to Dr. and Mrs. Roblee, the Society, about an hour later, adjourned till the November meeting.

H. R. MARTIN, Secretary pro tem.

San Bernardino County.

San Bernardino County Medical Society met pursuant to adjournment in the old Court Room, in San Bernardino, Dr. Hoell Tyler, President in the chair, and Dr. J. M. Hurley, Secretary, at the desk. The minutes of the last meeting were read and approved, Dr. Wood Hutchins of Oregon, and Dr. V. C. McCormico of Louisiana, being present as visitors.

Application for membership of W. B. Power, was voted upon and unanimously elected a member of this Society. Communication from Dr. J. P. Booth, one of our members who lives in Los Angeles, was read by Dr. Hurley, the Secretary, and was received by the association with applause, and the same was ordered to be filed.

Dr. Peyton, who was to have presented a paper, was not present. Dr. Mills reported a case of prostatectomy, that he in company with Dr. Crediford, had performed and at the same time removed a very large stone from the bladder. He reported the case as not fully recovered, but still under treatment. Dr. Mills also presented a gall stone that he had removed from the gall duct of one of his patients.

Dr. Wood Hutchins was called upon by the President to give his views and objects in the Arrowhead Sanitarium. Dr. Hutchins gave a synopsis of what was intended at the Spa Sanitarium, and some of his observations upon the treatment of specific complaints at other Spa Sanitariums: notably, the Hot Springs of Arkansas. The treatment there being inunction of mercury, the work being done by colored men, these men being selected in consequence of their being immune from the effects of mercury. He also stated that he saw good results by wearing a package of blue ointment around the neck of the patient.

Dr. McCormico was called upon by Dr. Hurley to give his observations and opinions upon the use of quinia, in that very malarious country, Louisiana, he being fresh from the field. Dr. Hurley asked this of Dr. McCormico in consideration of the fact that Professor Manson was reported as having said in a lecture in San Francisco that quinia would cure any case of malarial fevers. Dr. McCormico gave it as his observations that in the treatment of malarial fevers in Louisiana, that there are many cases of such fever in which quinia or any other form of this remedy gave no results. This being the experience of Dr. Hurley in various malarial countries. Dr. McCormico said that many such cases do go on until it is worn out, or the patient is worn out, and dies from debility or some other fever supervening. He gave his views from large experience in malarial countries that quinia is by no means a specific for this disease.

Under the head of new business, Dr. Strong introduced the following amendment to the by-laws, viz: That the section relating to the place of meeting of this association be so changed that all meetings of this Society shall be held in the Y. M. C. A. parlors, in the city of Redlands, on the second Wednesday of each month; this, under the rules, was ordered to lay over one month, adjourned to meet on the second Wednesday in November, in the Y. M. C. A. parlors, at two o'clock P. M., in Redlands.

J. M. HURLEY, Secretary.

San Francisco County.

The regular monthly meeting of the San Francisco County Medical Society was held Tuesday evening, October 10th. The meeting, as usual, was well attended and the program was an interesting one.

Among the papers presented, that of Dr. H. A. L. Ryfkogel on "A Case of Interscapulo-thoracic Amputation for Sarcoma" and "A Case of Mercurial Intoxication" by Dr. Emile Schmoll received special attention.

Dr. Ryfkogel, demonstrating a case of interscapulothoracic amputation for sarcoma: This patient is 27 years of age. About 7 months ago noticed some pain in the upper arm and shortly afterward noticed slight swelling there. A couple of months after, while taking a bath, reached behind himself and there was a sudden spontaneous fracture. I saw him 5 months after that and the mobility of the shoulder joint was diminished. The swelling of the upper arm invaded the soft tissues. X-ray picture was taken. A few days afterward an incision was made over the growth. The growth was curetted. Microscopic examination showed it to be a case of osteosarcoma. After that typical quarter amputation was made. The operation was very easy and the recovery uneventful.

Discussion: Dr. Rixford: It is a surprisingly interesting and simple operation because nature has almost done it after the vessels are tied, and the clavicle cut; and the indications for the operation are of very great importance. As a primary operation for sarcoma of the shoulder the statistics are excellent. As a secondary operation statistics are not so good. Personally I have had one similar case and in that case it was a secondary operation. It is now five years since the operation and there is as yet no recurrence.

Dr. Ryfkogel: In looking up this operation I found about 200 of these operations that had been done and the primary mortality was only about 70%, showing exceedingly simple operation. But the mortality of the secondary operation is about 15%. As Dr. Rixford said the secondary results are not so good. The recurrences have been very close to 50%. Some say 30 and others say 50%.

"A Case of Mercurial Intoxication," by Dr. Schmoll:

Discussion: Dr. Jellinek: I would like to call attention to the etiology of arterio sclerosis and mercurial poisoning. Several articles have been written. In view of our knowledge we call these cases so-called secondary sclerosis and these conditions might develop in this case though at present there are very few symptoms present.

Dr. Schmoll: In the absence of autopsy findings it is very difficult to say whether there is any devel-

opment in this case or not. The tremor has become markedly less. It is true that the prognosis is not very good as the tremor has never entirely disappeared and as soon as the patient becomes exposed he will get the tremor again.

New by-laws were adopted.

H. E. ALDERSON, Secretary.

San Joaquin County.

The last regular meeting of the San Joaquin County Medical Society was held September 29th at the residence of Dr. W. J. Young. Members present: Drs. E. A. Arthur, E. Harbert, D. F. Ray, S. W. R. Langdon, H. E. Sanderson, W. J. Young, F. R. Clarke, A. W. Hoisholt, J. P. Hull and Barton J. Powell. Dr. Blackmun was a guest.

Dr. Young presented a paper on an "Interesting Post-mortem Case." A young man 16 years of age working as a plumber's apprentice was injured while wrestling with some of his companions. He complained of pain in his hip and abdomen. Four days afterwards the young man died of meningitis. There was no tuberculous history, and no previous illness. At the post-mortem a quart of pus was removed in the lumbar region. There was a necrosis in the lumbar vertebra. In speaking of the tuberculous condition, Dr. Young also took occasion to describe the Lorenz method of treating tuberculous hip joint cases, having recently studied in the Lorenz Clinic. The discussion was opened by Dr. H. E. Sanderson, and followed by all the members present.

A communication was received from Dr. B. F. Surryhne of Modesto seeking admission to our society. The Northern District Medical Society have decided to meet in Stockton, November 11th next, and the local society decided to entertain them while in our city. Papers will be read during the evening and afternoon, to be followed by a banquet. It is expected that there will be a large attendance, and many interesting papers have been promised, as well as an elaborate entertainment for the visiting doctors.

Before adjournment Dr. Young banqueted the members present.

BARTON J. POWELL, Secretary.

Santa Clara County.

The regular monthly meeting for September was held at the Bristol Hotel, San Jose, on September 20th, convening at the usual hour with the following attendance: Dr. Asay in the chair, and Doctors Hogg, McNary, Fraser, Harris, Jordan, Snow, Witter, Holbrook, Cothran, Cooper, Southworth, Stirling, Chilson and Osborne, Secretary.

Dr. Asay as Councilor of the 5th district, embracing the counties of San Mateo, Santa Cruz, San Benito and Santa Clara, announced that there had been called a district meeting for October 20, 1905, to be held in Hale's Hall, San Jose, at the hour of 2 P. M. and to which meeting all ethical physicians in said district are cordially invited. Dr. J. B. McCormack, representing the American Medical Association will be present to address the meeting in the interests of medical organization and kindred topics. In the evening there will be tendered Dr. McCormack a reception and banquet at the Hotel Vendome, San Jose, the former extending from 8 to 9, and the banquet to immediately follow. This function will be under the joint auspices of the County Medical Society through its Executive Committee and the Commonwealth Club of Santa Clara Valley. The following have been invited to be present, the majority of whom have already accepted our invitations: Dr. Geo. C. Pardee, Governor of California; Dr. Martin Regensberger, President, and Dr. N. K. Foster, Secretary of the State Board of Health; Dr. J. B. Hall, Colonel and Assistant Surgeon General, U. S. A.; Dr. J. S. Cummings, Federal Quarantine Officer, San Francisco, U. S. Public Health and Marine Hospital Service; Dr. Philip Mills Jones, Secretary State Medical Society.

Dr. Snow of Stanford presented the paper of the evening—subject, "The Health of a University." The paper was an exceedingly interesting presentation of the methods and forms in vogue at Stanford to insure individual health of students, and the general sanitation of quarters and student environment, and gave elaborate statistics and striking results of the plans under demonstration. The paper was discussed by Doctors Cothran, Stirling, Fraser, Jordan, Chilson, McNary, Witter and Osborne.

Dr. Cothran presented the following resolution, which was unanimously adopted:

Resolved, Any and all essays or papers read before this society shall, immediately upon the reading thereof, become the exclusive property of the Society and shall not be given out for publication except by order of the Society expressed by a majority vote of the members present.

Certain matters relating to irregular practitioners and to medical service, considered to be inimical to the interests of the regular medical practice, were reported to the Society. On motion these matters as well as the subject of so-called "Contract Practice" were referred to the Committee on Ethics for investigation and report back to the Society.

The Society authorized and directed the President to appoint a special committee on Fee Bill, to report to the Society as soon as practicable, and the following were appointed as such committee: Doctors McNary, Chairman; Wagner and Thos. Kelley.

Dr. John L. Benepe of San Francisco, having removed from the jurisdiction of this Society, asked for transfer papers. His dues and assessments for the current year having been paid in full his request was granted.

On the amendments proposed by Dr. Wagner at last meeting the following action was had: On first amendment fixing the yearly dues at five dollars instead of two and one-half dollars the vote was unanimous, the new schedule going into effect January 1, 1906. The second amendment proposed relating to fees accompanying applications, no action was reached, the Society preferring that consideration of same should lay over one month.

The next stated meeting will be held at the Bristol Hotel, San Jose, on October 18, 1905, at 8 o'clock P. M. sharp. The paper will be by Dr. M. V. Mulcahy. Subject, "Medical Ethics."

A. E. OSBORNE, Secretary.

The Society of Social and Moral Prophylaxis.

The program at the October meeting was as follows:

1. Should the youth of the country be educated in a knowledge of sexual physiology and hygiene?
2. What should be the nature and scope of this education?
3. At what age should this instruction be given and should it be progressive according to the age of the individual?
4. Through what agencies should this instruction be given—through parents, physicians or teachers? Should our educational centers—high schools, colleges, and universities—be utilized for this purpose?
5. Should the teaching of sexual physiology be incorporated in our text-books of elementary hygiene?

As the educational feature of the Society's work is an important one, the Executive Committee would be glad to have a general expression of opinion from the medical profession as to the availability and practical value of this proposed education. Physicians who have given serious thought to the subject are invited to send to the Secretary their views upon any or all of the questions submitted for discussion. Such communications will be analyzed and tabulated and form the subject of a report by the Committee on Education.

E. L. KEYES, JR., Secretary.

New York, October 12, 1905.

MEDICAL SOCIETIES.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

The regular meeting was held on Thursday, September 20, 1905, at 8:15 P. M., the President, Dr. K. Pischel, in the chair.

The following is the scientific program in abstract: Dr. W. L. Snow, of Palo Alto, read a paper entitled: "Some College Influences on Students' Eyes" (published elsewhere), eliciting this discussion.

Dr. F. B. Eaton: This paper is very interesting to me and I think to most of us. I am sure that all of us have had numbers of the students of the different universities under our care. I have noticed that the greatest number broke down about Christmas time, and the mental, as well as the physical, condition was often distressing. They were afraid that they could not pass the examinations and were distressed both in body and mind.

I am glad that so much is being done to call the attention of the parents and family physicians to the condition of the students. Now we see comparatively few breaking down which is undoubtedly due to the careful provisions made.

This question of physical standard, of which the doctor speaks, would be difficult to decide upon. I think different physicians or physical culturists would have different standards.

As far as the eye is concerned it seems to me that I can only make the sugestion that there should be no organic disease of the eye of importance, or fundus trouble, and no astigmatism over one-half dioptre uncorrected, or hyperopia or myopia. As long as the general health is vigorous many of our glasses can be thrown aside.

Dr. K. Pischel: I am pleased with the statement of Dr. Snow that not only the refraction should be looked after but the general health. We hear so often of girls complaining of headaches. Very frequently they are not caused from the eye at all but from incorrect feeding or bad air. At the same time the eye should be carefully looked after, but keep in mind that glasses alone will not cure headaches.

Dr. C. S. G. Nagel: Dr. Snow mentioned granular lids as distinct from trachoma. Do I understand you to use that term as synonymous with follicular?

Dr. Snow, closing discussion: With regard to Dr. Nagel's question I mean simply granular lids. But few know of trachoma and most speak of the condition as granular lids. The University Council has passed a new entrance credit to be known as, hygiene. Credit is given to high school students who have covered a specific amount of questions in public health, work in the field and physical training. My purpose in urging it to the Council has been for the University to place its approval on the health side of the student's life, and encourage men and women to give time to this study. The only solution of our attempts will come when the Health Boards recognize the fact that spasmodic medical examinations and superficial physical training must be placed on a scientific basis.

Dr. C. S. G. Nagel demonstrated a case of ablatio retinæ e contusione, reading a paper on the subject. He said, in part: The lesion not complicated by rupture of the sclera or inner membranes of bulbus is rare. With these complications loss of vitreous or hemorrhage offer ready explanation. Also in diseased eyes with detached corpus vitreum a detachment of the retina might easily come about through "subhyaloid" fluid or from transudate between retina and choroid.

History of case: Healthy individual with normal eyes. Prompt loss of vision in eye after blow three weeks ago. Changes in upper part of the vitreous and extensive detachment of retina upwards.

Leber's explanation of promptly healed scleral rupture gives no insight into the causation or mechanism of ablatio retinae. Writer suggests partial breaking up of vitreous, simultaneous peripheral dehiscence of retina admitting of fluid behind it.

Dr. W. Scott Franklin: Rupture of the choroid is a comparatively rare condition and especially so multiple rupture. The cleft is usually semilunar and concentric with the optic nerve. The white streaks in this case are in a grosser sense concentric with the nerve, and the lower one in particular, looks to me distinctly like a rupture of the choroid, though there is no line of pigment on either side. I cannot realize how an edema should produce such an opaque whitish streak with the clear cut edges. I consider this a case of multiple rupture of the choroid.

Dr. Eaton: In this case there is not only one streak but I observed several white streaks. I cannot understand how edema of the retina can happen in such a line as that. I saw several lines parallel to each other.

Dr. Nagel, closing discussion: I can only repeat that the fundus was so visible when I examined it before that I fail to see why rupture should not have been apparent then. Moreover there ought to be in rupture sanguinous detachment. The details and pigmentation of the fundus were very visible always. I am sure that this is edema of the retina.

A paper was read on "The Relation of the Optician to the Oculist," eliciting a spirited discussion.

The society adjourned until October the 19th.

W. SCOTT FRANKLIN, Secretary.

San Joaquin Valley Medical Society.

The twentieth semi-annual session of the San Joaquin Valley Medical Society was held in Fresno, October 10, 1905.

The following were elected to membership: Dr. L. R. Willson, Fresno; Dr. H. V. Monett, Turlock; Dr. W. T. Crawford, Fowler; Dr. M. A. Gilreath, Selma; Dr. R. W. Musgrave, Hanford; Dr. Charles Weddle, Dinuba; H. V. Armistead, Newman.

Those present were Drs. Aiken, Barr, Dunn, Galehouse, Russell, Sherman, Trowbridge, Doyle, Manson, Rowell, Perry, Kjaerbye, Couey, Loper, Hayden, Anthoney, W. T. Maupin, J. L. Maupin, L. R. Wilson, Davidson, Miller, Moradian, Parsegan, Gebhart, and J. R. Walker of Fresno; Kellogg, Fowler, Carson, Bakersfield; Hildreth, Delano; Cross and Pettit of Visalia; Weddle, Furtney and Whittington of Dinuba; Felton and Musgrave of Hanford; McCubbin of Lemoore; Bering of Tulare; Lilley, Merced; Monett of Turlock; A. W. Morton, San Francisco.

The papers were all very thorough and well discussed.

The following were elected officers for the ensuing term: President, W. S. Fowler; First Vice-President, A. M. Smith of Merced; Second Vice-President, C. W. Evans, Modesto; Third Vice-President, R. W. Musgrave, Hanford. The Secretary, Assistant Secretary and Treasurer, holding over.

In the evening the members and visitors attended a banquet given by the Fresno County Medical Society at the Sequoia Cafe. The next meeting will be held in Bakersfield the second Tuesday in March, 1906.

J. R. WALKER, Secretary.

Resolutions on the death of Drs. W. J. Baker of Fresno, and A. L. Wilson of Tulare. Your committee to whom was referred the matter of drawing up resolutions relative to the recent death of Dr. W. J. Baker of Fresno, and Dr. A. L. Wilson of Tulare, members of this society, hereby report the following:

Resolved, That the San Joaquin Valley Medical Society hereby express its regret at the loss by death of two of its members.

Dr. Baker, though formerly in active practice in the East, had not been following the profession of medicine in California. He had however retained his interest in everything pertaining to the profession, and took part in the proceedings of this Society. He was an educated gentleman, public spirited, of kindly nature, and an honored citizen.

Dr. Wilson was a graduate of the Missouri Medical College of the class of 1884, and practiced in California since 1895. He was a successful practitioner, well liked in his community, and took an active interest in fraternal and public affairs. He left a good family to perpetuate his name, and a record of good work and good deeds.

Out of respect and in kindly remembrance of these our medical associates be it,

Resolved, That these resolutions be entered upon the permanent records of this Society and published in the STATE JOURNAL OF MEDICINE.

CHESTER ROWELL,
W. T. BARR,
C. D. PERRY,
Committee.

San Francisco Polyclinic Gathering.

The President, Dr. Ryfkogel, in the chair. Dr. F. B. Carpenter presented a patient upon whom he had operated for carcinoma of the pylorus.

The patient, about 50 years of age, had suffered with various gastric symptoms for about 6 months, and at the time of operation exhibited a palpable tumor. At the operation, two-thirds of the stomach was removed, and the cut end of the duodenum was anastomosed to the middle of the posterior surface of the stump. No difficulty was experienced in bringing these parts together, and a Murphy button was used.

The button came away 3 years and 3 months after the operation, its passage being preceded by a spasm of very severe pain. The growth was found to be carcinomatous, and at the time of presentation, 6 years after the operation, there was no sign of recurrence. The patient has subsequently submitted to two operations, one for pleurisy and one for strangulated hernia.

Dr. William Martin presented the two following cases, which were discussed with interest:

Mrs. ———. Calcified lens; luxated into anterior chamber. Eye blind from injury in childhood, 25 years since. Two weeks since, she was watching her husband calcimine a ceiling when something fell into her eye, irritating it. On looking in a glass the following morning she observed a white body in the eye, and thought it must be lime that had fallen in the previous day. Dr. Martin made a linear section, with the expectation of removing it, but found it firmly adherent to the iris. The capsule ruptured and chalky masses were removed with the iris forceps; as considerable force would have been required to drag it out, further procedure was postponed until patient was prepared to enter a hospital. Very little reaction followed operation performed in the clinic.

Mrs. ———. Age 30. Keratitis punctata superficialis (Fuchs). The condition is not a very frequent one. In this case the primary trouble appeared in the sclera, followed by a cone-shaped opacity in the upper outer temporal segment of the right eye; there was considerable photophobia. The disseminated opacities, which are still present, followed, while the inflammation of the sclera and the marginal cone have disappeared, leaving a clear marginal space at the limbus. The condition is probably due to some systemic disturbance, but so far no definite cause can be determined. There is no history of luetic or rheumatic disease in this case. Salycilate of soda is being administered. The acute period has passed, and the patient is free of pain, only the disturbance of vision annoys her.

Other patients were presented and several interesting cases reported, which will be published subsequently.

Drugs and the Diazo Reaction.

Incited by a statement in the medical press that certain drugs will cause a positive reaction to the usual diazo test, W. W. Golden, Elkins, W. Va. (*Journal A. M. A.*, September 23d), reports the results of a series of experiments made with these drugs on patients with normal urinary reaction. While the observations are not numerous, he thinks that, so far as they go, they most emphatically disprove the assertion that salol, thymol, sodium, sodium sulphocarbolate and guaiacol carbonate have the power of producing the diazo reaction in the urine of persons taking these drugs. He also made two experiments to test the persistency of this reaction in urine after long standing, with or without the addition of preservatives. Two samples of typhoid urine, one with the addition of 2 cc. of chloroform and one without, were allowed to stand for periods, respectively, of one week and forty-eight hours, and the reaction was found unimpaired.

PUBLICATIONS.

Manual of the Diseases of the Eye.—By CHAS. H. MAY, M. D., Fourth Edition. Wm. Wood & Co., New York, 1905. Price, muslin, $2.00 net.

The fourth edition of the above work has just appeared with new additions in the way of illustrations and paragraphs bringing the book strictly up to date.

It is highly recommended to students and general practitioners on account of the concise yet thorough manner in which the subject is handled.

The excellent and numerous illustrations serve to elucidate the text in a most satisfactory manner. The work is to be especially commended for the colored plates which depict almost every disease of the eye. L. C. D.

A Compend of Histology.—By HENRY ERDMANN RADASCH, M. D. P. Blakiston's Son & Co., Philadelphia, 1905. Price, $1.00.

This little volume is rather more comprehensive than the general run of "compends," and is correspondingly to be commended. The "compend" seems to have become a necessary evil, and so it would seem wise to recognize that fact. Used merely as a reminder—as a sort of extended note book, these little volumes have their own place and will doubtless be of use. The present volume seems to be well written and carefully edited; the information is less concentrated and consequently more useful than usual, and the illustrations are good and really "illustrate."

Practical Massage in Twenty Lessons.—By HARTVIG NISSEN, Instructor and Lecturer in Massage and Gymnastics at Harvard University Summer School; Director of Physical Training, Brookline Public Schools; Former Acting Director of Physical Training, Boston Public Schools; Former Instructor of Physical Training at Johns Hopkins University and Wellesley College; Former Director of the Swedish Health Institute, Washington, D. C., etc., etc. Author of "Swedish Movement and Massage Treatment," "A, B, C of Swedish Educational Gymnastics," "Rational Home Gymnastics," etc. With 46 Original Illustrations. 168 Pages. 12mo. Price, Extra Cloth, $1.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

The value of properly given massage seems to be more appreciated from year to year, and while the present book of Nissen's will be more valuable to the nurse or masseur, it will undoubtedly be of interest and value to many physicians who are only beginning to realize what good massage is really worth.

Dayton's Epitome of the Practice of Medicine.—A Manual for Students and Practitioners. By HUGHES DAYTON, M. D., Principal to the Class in Medicine, New York Hospital, Out-Patient Department; Clinical Assistant in Medicine, Vanderbilt Clinic, College of Physicians and Surgeons, Columbia University. In one 12mo volume of 324 pages. Cloth, $1.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This volume is called "a manual for students and practitioners," but it should rather be regarded as an extended dictionary. To assume that the practice of medicine may be condensed into 324 small pages, would be absurd. Regarded as a dictionary in extenso, it appears to be a very useful volume. The student who learned his medicine from such a source, would have a very trifling amount of knowledge; but either the student who has learned his medicine from good teachers and more extended works, or the practitioner who occasionally needs a jog to his memory, will find this volume, used in the manner of an extended dictionary, very useful.

We acknowledge the receipt of the following:

On the Influence of Temperature Upon Cardiac Contraction and Its Relation to Influence of Temperature Upon Chemical Reaction Volocity.—By CHARLES D. SNYDER.

The Gas Disease in Fishes.—By M. C. MARSH, Assistant Bureau of Fisheries, and F. P. GORHAM, Associate Professor of Biology, Brown University.

The Catalogue of Officers and Fellows, Honorary Active, and Retired, Borne Upon the Rolls of the Massachusetts Medical Society.

Artificial Membrane Formation and Chemical Fertilization in a Starfish (Asternia).—By JACQUES LOEB.

A Treatise on the Development of the Pharmaceutical Still.—Lloyd Brothers, Cincinnati, Ohio.

Typhoid Fever Epidemic at Palo Alto, California.—by J. C. L. FISH, Assoc. M. Am. Soc., C. E.

The Immunity Unit for Standardizing Diphtheria Antitoxin.—By M. J. ROSENAU.

Transactions of the Florida Medical Association, 1905.

Medical Communications of the Massachusetts Medical Society, Vol. XX, No. 1, 1905.

The following reprints have been received:

Goat's Milk for Babies, and the Milk-Goat as a Part of Our Park System.—By ELIZA H. ROOT, M. D., Chicago, Illinois.

The Therapeutic Use of Water Drinking and Some of Its Dangers.—By ELIZA H. ROOT, M. D., Chicago, Ill.

The Cure of Leprosy.—By ISADORE DYER, Ph. B., M. D., New Orleans, La.

The Barber Shop in Society.—By ISADORE DYER, Ph. B., M. D., New Orleans, La.

A Preliminary Report on Cells Found in Yellow Fever, With Reference to Their Etiologic Significance.

Drs. Pothier, Hume, Watson and Couret, in the *Journal A. M. A.*, September 23d, report that after a careful study of the blood of yellow fever patients they noticed the regular occurrence of certain cells hitherto unnoticed or not described. They state that these cells seem to be undergoing developmental changes which can be demonstrated in the stomach of a recently infected stegomyia. These cells are entirely extracellular, though occasionally some are seen lying on the red cells; and on one occasion one was seen within the protoplasm of a morpho-neutrophile leukocyte. They give in detail the methods of staining, and state that every effort was made to avoid sources of error. The stains were filtered, sterilized and examined, with negative results for other bodies.

Exstrophy of the Bladder.

H. M. Sherman, San Francisco (*Journal A. M. A.*, September 23d), reports a case of exstrophy of the bladder in a boy, successfully treated by Peters' method. This consists in dissecting out the ureters individually, keeping a small circular patch of bladder wall about the vesical orifice of each, and ablation of the rest of the bladder wall. Each ureter with its button of bladder wall is then drawn through a small slit in the rectal wall of its own side and left hanging from 1 cm. to 1.5 cm. into the rectal lumen. Sherman varied from Peters' technic in not retaining a catheter in the ureter after transplantation and also in using a suture at the rectal slits, including in the stitch a little of the peritoneal areolar tissue which had been kept with the ureter to carry its blood vessels. He thinks it might have been possible even to close up the abdomen at once had the patient been in better condition, as urinary leakage was impossible, but he followed Peters' method of temporarily packing the bladder wound. He was careful to leave the prostatic urethra untouched, and later succeeded in permanently closing it above. The child was thus left with the rectum acting as a bladder and the genital passages intact. The functional results were good from the first, and he thinks that ascending infection may be indefinitely postponed, and that the patient may go through life with comparatively little inconvenience and only an abdominal scar left as externally visible evidence of the operation.

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Dr. Benjamin Lee - - Secretary, Pennsylvania State Board of Health
Dr. Thomas Darlington - - - President, New York Board of Health
Dr. Samuel H. Durgin - - - Health Physician, Boston, Mass.
Dr. Heman Spalding - - - Chief Health Inspector, Chicago, Ill.

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California State Journal of Medicine.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. III DECEMBER, 1905. No. 12

NOTICE

The next meeting of the State Society will be held in San Francisco, April 17th to 19th, 1906; the Rocky Mountain and Inter-State Medical Society will meet with us at that time; clinics will be arranged for the 16th, 20th and 21st, so that the sessions will, practically, occupy the entire week. Three major symposia have been selected by the Program Committee: Anesthesia, Lungs (not including tuberculosis), and Stomach. A few volunteer papers in these symposia will be accepted by the Committee, provided that members desiring to present them will notify the Committee BEFORE JANUARY 1ST.

Members desiring to present papers in the sections, or at the general meetings, are requested to send in their names and the titles of papers as early as possible.

No contributor will be given place on the program unless the title and an abstract of his paper shall be received BEFORE MARCH 1ST, 1906.

The Chairman of the Committee is Dr. Harold Brunn, 1312 Van Ness Avenue, San Francisco.

EDITORIAL NOTES.

COLLIER'S WEEKLY.

The exposures made by *Collier's* in its issue for November 4th, are astounding. It is shown, through the reproduction of letters, telegrams, contracts, etc., that every newspaper in the country is implicated in the alcoholic nostrum fraud; that our own newspapers are not only bound to silence when the question of nostrums comes along, but that they are forced to do the lobbying for the greatest fraud in the world—the American "patent medicine." From extracts from the transactions of the Proprietary Association of America, it is shown just how beautifully these people are organized, and how they crack the whip over the backs of the newspapers and our legislators. The article is too long to reprint, and abstracts from it would give but a poor idea of the actual degradation of our vaunted "free" press. Free? There never were such slaves since the world began! Every physician in the country should give his hearty support to *Collier's Weekly*, and everyone of us should read the article referred to. There is no doubt in the world that the disgruntled nostrum manufacturers who "work" the medical profession, and who have throttled its medical publications just as effectively as the "patent" medicine men have throttled the newspapers, will join hands with the Proprietary Association in its attacks upon the American Medical Association and upon the medical profession generally. Already they have established a news bureau for the purpose of preparing articles attacking the medical profession, and having them published by their slaves—the newspapers. In our own profession we will have no help except from the *Journal A. M. A.* and the State journals, for practically all the others are owned by the nostrum men who advertise in them. Such leaders as the *Medical Record* (too dignified to pay any attention to its advertising pages) and the *New York Medical Journal* (which openly sides with the nostrum men and has offered its pages to them to express their views on their right to befool the medical profession and the public) will not help us in the fight one whit; indeed, we may consider ourselves fortunate if they do not join with the newspaper slaves and attack us. Learn the facts and then help to spread the news among your patients and your friends. Only in this way can they be placed before the people, for the newspapers have sold themselves for a price, paid in homes ruined and graves filled, that would turn the stomach of an honest man.

MEDICAL LAWS.

Why do the various State Legislatures enact laws regulating the practice of medicine? If one seriously asks himself this question and studiously searches for the answer, he will find that it is mainly to protect the public against ignorance and incompetence by providing for a minimum amount of educational and scientific equipment which must be possessed by those who will treat the sick or injured. A properly constructed and administered medical law should make it very easy for the well-equipped physician to become licensed, while rendering it practically impossible for the ignorant or incompetent to prey upon the sick. Nothing else is contemplated or desired, and nothing else should ever be allowed to creep into a medical law or the

method of its administration. This one end and object, which should never be overlooked, seems to be too often forgotten or ignored, with the result that many of those States which have excellent laws for the theoretical control of the practice of medicine, are really overrun by charlatans and quacks, while other, apparently less blessed sections, with less rigid laws, or laws more intelligently enforced, are found to be pursuing the even tenor of their way, unaccompanied by the quack and the charlatan. It is not often that the JOURNAL republishes a paper which has previously appeared in another journal, but the truth of these things, which we think cannot be gainsaid, is so remarkably well put in a paper by Dr. Van Meter, of Colorado,* that we consider it wise to publish at page 382 a full abstract with the request that every member of the Society give this question his attention. Dr. Van Meter has been directly interested in the subject of medical-practice legislation for a number of years, and his words are spoken as the result of rich experience. The essential points which he brings out have been the strongest elements in the regulation of the practice of medicine in the States of Alabama and Kentucky. New York has the reputation of having the highest requirements and the stiffest examinations of any State in the country, yet its every considerable city is alive with quacks. Kentucky has made no reputation for itself for stiff examinations or unreasonable requirements, yet there has not been a quack in that State for fifteen years. Enough said?

GRAFT.

Mr. Adams, in *Collier's Weekly*, said in his first paper that he had been warned to discriminate between proprietary medicines and nostrums; that many of the former class were good: but when he came to investigate the matter, he found mighty few "proprietary" medicines in the good class. He was quite right. The only real money-making feature of nine-tenths of the proprietary business is graft—graft, pure and simple; just as much graft and the same sort of graft as we find in the business methods of the nostrums advertised to the laity. For years pepto-mangan was held up by some physicians as a type of the "ethical proprietary," which advertised itself only to physicians and in a proper manner. Thanks to the *Journal A. M. A.*, we have been shown the sort of commercial methods pursued by these honorable gentlemen in persuading physicians to make use of their "ethical proprietary," which is really less valuable as a remedy than pharmacopeial preparations of known composition. Consider tongaline and glycozone and Pond's extract, all following exactly the same course as peruna and making capital out of the anxiety which accompanies an epidemic. Contemplate the long list of "medical" journals which advertise that practically worthless stuff, Pond's extract; or the equally large number of alleged medical journals which help along the graft by advertising syrup of figs as a senna mixture, while the daily papers advertise it to the laity in a manner to lead the public to believe that it owes its virtues, in some mysterious way, to figs. It is a merry game of graft, graft, graft; the manufacturers play the fiddles and bought-and-paid-for "medical journals" dance, and the credulous or ignorant profession is properly hypnotized by the noise and the gyrations. The more we stir the nasty mess of proprietary corruption the worse is the stench.

* *Colorado Medicine*, October, 1905.

Where is the freedom of the press? Practically every newspaper in this country has been bought by the alcoholic nostrum manufacturers and has signed advertising contracts with them which contain the following clauses:

1st. It is agreed **in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.),** that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper in which their products are offered, with a view to substitution or other harmful motive; **also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.**

(See *Collier's Weekly*, Nov. 4, 1905.)

ALCOHOLIC NOSTRUMS.

It is almost proverbial that Governments advance more slowly than do individuals, and our Government is no exception to the rule. Many hundreds of thousands of people in the United States have known for years that a large number of the so-called "patent medicines" advertised and sold to the general public are nothing but bad whiskey plus some inert vegetable and coloring matter, and are manufactured and sold simply and solely for the purpose of inducing or supplying a craving for alcohol; but our Government has only recently become aware of this fact, officially. Some weeks ago Mr. Yerkes, United States Commissioner of Internal Revenue, issued an order to the effect that all "patent medicines" would be analyzed and the manufacturers of those found to be composed largely of distilled spirits or mixtures thereof, and containing only a small amount of other ingredients (in short, all which are obviously intended as alcoholic beverages) must pay the wholesale liquor dealers' and rectifiers' tax, and that retailers who handle such goods must pay the regular Government liquor dealers' annual tax of $25.00. The list of so-called "medicines" which will come within the provisions of this order has not been announced,

but in all human probability it will contain most of the articles in the list of alcoholic "medicines" published sometime ago by the *Ladies' Home Journal*, and reprinted in your JOURNAL at that time. In order to refresh your memory we again reprint that table at page 396. As soon as the further announcement is made, we will advise you. Then watch your druggist and see whether he handles these alcoholics and whether he takes out a liquor dealer's license; if he does, it would not be a bad plan to find some other pharmacist. The medical profession is closely affiliated with the profession of pharmacy, but we have yet to learn that it has any close connection with the liquor business.

BILLINGS' PAPER.

The paper by Dr. Frank Billings of Chicago, read at the last meeting of the A. M. A., is well worth your careful reading and inward digestion. By special arrangement with the *Journal A. M. A.*, this paper will appear simultaneously in that journal and in a large number of the State society journals. Only two State society journals flatly refused to publish this paper; one of them alleged lack of space and in the other case the editor said that he was not in full sympathy with the sentiments expressed by Dr. Billings—doubtless because the advertising pages of his journal assist in promoting the use of a goodly number of the rank nostrums mentioned by Dr. Billings. It is worth while to ponder upon a little plain truth once in a while, and certainly there is enough of it here presented to warrant considerable "pondering." These nostrums can only live while they make money for their manufacturers, and while their manufacturers are spending money in liberal purchase of the so-called "medical" journals.

They do not live because of their own merit, for hardly one of them has the slightest particle of actual merit to commend it to professional attention. If they stop advertising they die. Nearly all the medical journals in the country are published to make money; any service they may render to the medical profession is a secondary consideration; primarily, their owners have but one object—to make money. They do not care how they make it, so long as they make it, and the more they can make the better pleased they are. The journals which are the biggest, and which ought to be the best are amongst the worst sinners; if there is a nostrum so bad that the big weeklies, the *Boston Medical and Surgical Journal*, the *Medical Record*, the *New York Medical Journal* and the *Medical News* will not permit it advertising space—if paid for—we do not know of it. These nostrums and most "proprietary" mixtures live on graft, lies, deceit, secrecy and fraud—and the bought-and-paid-for "medical" journals help them in the graft. Remember, they do not thrive on their own merits. Will you not look through the advertising pages of the journals which you subscribe for, and if you see the advertisements of these nostrums that outrage professional decency, stop your subscription? As Dr. Billings says, "sympathy will not win battles," and this is a battle for decency and honor. Will you help? You can do much if you will; will you do it?

Explain to your friends and patients that practically every newspaper in the United States is a silent partner in the nostrum fraud business. That it is bound to silence and to aid in defrauding the people into using alcoholic nostrums by the following clauses in its advertising contracts with the nostrum trust:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper, in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

UNBLUSHING IMPUDENCE.

One of the nostrum manufacturers who have for years foisted their wares upon the public through the daily papers, has recently taken to advertising in the so-called "medical" press. We quote the following from a "medical" journal of the predatory class: "Yes, it's true! This company certainly advertises in the newspapers! Here is a sample, word for word, now appearing all over this country: 'Do not undervalue the services of a skillful physician. Even the best medicine cannot take the place of the family doctor. Therefore we say: Consult your physician freely about your case and ask him what he thinks about your taking Ayer's Cherry Pectoral for your cough. If he says take it then take it. If he says do not take it, then follow his advice.' Anything objectionable about that? We have always upheld the honor of the medical profession. J. C. Ayer Co., Lowell, Mass." "Upheld the honor of the medical profession!" Ye gods, deliver us from such friends and upholders! Just see how ingeniously you are being worked by these advertisements and how these "medical" journals—Heaven save the mark!—are helping in the "working" process. A man with the cough of a beginning tuberculosis sees that advertisement in his daily paper. The ingenuous reference to his physician convinces him that the remedy must be all right, so what's the use of seeing a doctor who may tell him to use this "medicine," or may prescribe it, even. If it is some-

thing doctors use it must be good for a cough. So he gets a bottle and then another, and then some more; and when he finally does go to a physician he finds the disease has passed beyond the curable stage. How many people have lost their lives in just that way, do you suppose?

Now, this J. C. Ayer Co., the "upholder" of the honor of the medical profession, is a member of that highly honorable and estimable gang of manufacturers of alcoholic nostrums (so beautifully shown up in *Collier's Weekly* for Nov. 4th), which, through its remarkably clever organization, has actually bought the silence of practically every newspaper in the country. (If you have not yet read *Collier's*, by all means get it and read it; you cannot afford not to know the actual facts there disclosed.) Just stop and think what that means. Every newspaper in the country throttled; not a word injurious to the interests of the drunk-making nostrums can be published; the self-respect of every newspaper man in the country sold to the nostrum makers for a little dirty advertising! And now, fearing the influence of the "medical" journals, are these nostrum makers attempting to throttle the medical press in the same way that they have bought the daily press? It would be interesting to see just the sort of advertising contract that the J. C. Ayer Co. has made with the *Charlotte Medical Journal*, for example.

THOSE FEES.

This is just about the very best time imaginable to keep agitating the question of cheap insurance examination fees. Do not let the matter drop, but hold out more firmly than ever for a minimum fee of $5.00, and you will surely win in the end. Already a few companies have secretly notified their agents to pay the extra $2.00 in those sections where it is insisted upon, and under no circumstances to let the extra $2.00 start up a general discussion of the insurance business. Go to your lay friends and explain the danger they run in insuring in a company so regardless of the welfare of the policy holder as to accept risks based upon cheap examinations. Refer to that letter which we published last month, from the medical director of a company, in which he states: "If a physician does not wish to do the work at our rates we are compelled to find someone who will." Does this mean that pretty soon they may have the janitors, or possibly their own agents, making their examinations? If so, then watch the mortality tables! Anything to save a few dollars, so that the officers may have larger surpluses to get away with or to devote to bribery and corruption. The Insurance Commission in New York has shown that the poor policy holder is the very last person thought of by the officers who juggle the money. He thinks he is buying life insurance, but he is really participating in a beautiful philanthropic enterprise—mainly for the benefit of the president, and his family; the vice-presidents, and their families; the other minor officers and families, and then the officials of other companies. Pay $2.00 more to the physician who makes the examination? Never! If a *physician* won't make the examination for $3.00, get someone else to do it; hang the policy holder! Save the $2.00! When you hear of an acquaintance who is going to take out life insurance, go to him and explain the danger of taking out a policy in a company that is so reckless as to accept cheap examinations, which are really an actual danger. Urge your friends to place their insurance with companies which pay a minimum examination fee of $5.00.

Where is the freedom of the press? Practically every newspaper in this country has been bought by the alcoholic nostrum manufacturers and has signed advertising contracts with them which contain the following clauses:

1st. It is agreed **in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.),** that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper in which their products are offered, with a view to substitution or other harmful motive; also, **in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.**

(See *Collier's Weekly*, Nov. 4, 1905.)

DR. McCORMACK'S ADDRESSES ON ORGANIZATION.

(*Continued from page 341, Vol. III, No. 11.*)

There is hardly an evil in the medical profession today for which the physicians themselves are not responsible. Back of almost every mal-practice suit that was ever tried may be found some envious or disgruntled doctor. The degradation of the expert medical witness is almost complete, and is largely, if not entirely, due to envy, hatred and malice. Isolation and comparative ignorance are the causes which have brought about these conditions, and the remedy is plain. Among bankers, similar conditions formerly existed, and their dissensions were as numerous as those among physicians until the bankers' association was formed and they were brought together. The clergy suffered from the same blight until the ministerial associations which now exist in every community were organized.

Organization and education promise to remedy the sickness from which we are now suffering. If the physicians of a community can meet each other frequently and become acquainted, can really get to know each other

and to help each other, can substitute co-operation for antagonism, they will all be helped and the community will benefit. The struggle for existence is much harder when men are at outs than when they are working harmoniously, and the greater the struggle for existence, the less opportunity is there for improvement and study. Thus we find that far too many medical men have remained exactly where they were, mentally speaking, when they graduated; they have not kept up with the times; each has gone his own little isolated way and most have stagnated. If they would meet together and study together, each could and would both help, and be helped by, the others, and they would soon find that their many and bitter differences were really things of air.

A good and complete organization in each county—an organization in fact and not alone in theory—is absolutely essential. Every licensed physician, without regard to school of graduation or other consideration, so long as he is reputable and does not advertise himself to be the follower of any particular cult, should be a member of his county medical society—and should be a working member, and not merely a theoretical member. Meetings should be held frequently and not at rare intervals; once a week, if possible, and it is possible in more cases than one would think at first glance. Light refreshments will be found a very welcome adjunct to these meetings and will add greatly to their pleasure and to their success.

Scientific work should be energetically pursued. The majority of county society meetings are a good deal of a farce; some member will read a paper carefully (?) prepared from some old text book, and both paper and discussion will be enough to dishearten any one. Regular courses of systematic study should be organized and followed, and the work of the county society should be largely of the nature of post-graduate work. In Indiana there is a county society that has done just exactly this work for three years, and during that time, except in the summers, has met every other night. When this course was suggested at the meeting of the county society held at Rochester, Minnesota, the first man to appreciate the force of the argument and the necessity for the work was no less a man than Dr. Will Mayo, president-elect of the American Medical Association and one of the foremost surgeons in the world. In his opinion no member of his society would profit more from this plan of post-graduate work than would he himself. Every county society should take this matter up at once and arrange for systematic work; if half the energy that is put in in hammering each other were devoted to educational work, most of our quarrels would soon be forgotten and we should all be better doctors.

Too long have our medical societies hedged themselves about with a mantle of secrecy; it is high time that the public were taken into our confidence and a closer understanding reached. Our own aloofness and our own bickerings have brought about a condition of distrust in the public mind and this we should make every effort to correct. Arrange for joint meetings with the bar association of your county and discuss with the attorneys and judges the questions that affect the medical profession and the public. These gentlemen, very often, do not understand what we are working for. It has not been clearly and plainly put to them that the quack is a danger to the poor and sick laymen and not to the physician, and that it is merely protecting the public from unscrupulous or ignorant grafters, to have and to enforce a good medical law. Come to an understanding with the newspapers and arrange to supply them, anonymously, through a committee or through some appointed individual, with correct information and news about things of general medical interest. Only in this way can these facts be correctly placed before the people, and if we do not do it, it will not be done.

In the same way discuss matters with the ministerial association. There is absolutely no reason why ministers should not be charged for professional services just the same as any other class; they are quite as well able to pay their bills and it is time that the medical profession stopped giving its services except in cases of destitution. Then, too, they should be educated in the harm they are doing through aiding quackery. Fifty years ago, Oliver Wendell Holmes stated that quackery limped along on two crutches—the tattling of old women and the certificates of clergymen. Many truly honest and upright clergymen are taking and recklessly recommending the various alcoholic "patents," simply because they do not know any better. Almost every notorious quack in the country is a broken down preacher.

Consider these things carefully and then consider what can be done. There is nothing Utopian in the suggestions made; the facts are true and the suggestions are perfectly practicable.

(Next month we will discuss conditions as they are and as they may be if we will but do a little work.)

(*To be continued.*)

DR. EDITH JANE CLAYPOLE VS. THE BOARD OF MEDICAL EXAMINERS.

This case was settled out of court by the issuance of a certificate to Dr. Claypole by the legal adviser of the board, on October 18, 1905. As the case has occupied considerable attention from the Society for a year or more past,

your Publication Committee has given much time to a thorough investigation of the matter and considers it its duty to place before you with absolute impartiality, the facts. These have been obtained from the records of the board, from all documents in the case, and from personal interviews with the counsel and with members of the board.

Dr. Claypole filed the old form of statutory affidavit on or about the 10th of June, 1904, stating that she had obtained a degree of doctor of medicine in the regular course and without fraud. She then presented herself at what is stated to have been a special examination held in Los Angeles July 12th to 14th; after the examination the papers were sent to the various examiners for marking. The board met in formal session July 30th and it then appeared that Dr. Claypole had received a general average of 84%, but had been conditioned in pathology, receiving only 59%. At that time candidates receiving less than 60% were conditioned and could work off the condition at a subsequent examination in the conditioned subject. At this session of the board a document from Cornell University was presented which stated that Dr. Claypole had studied medicine atthat institution during the freshman year and for four and one-half months in the sophmore year; the required time is nine months of each year at Cornell University and the minimum legal requirement is six months.

After leaving Cornell Miss Claypole came to California and applied for admission to the junior class of the University of Southern California, Medical School. The then dean, Dr. H. G. Brainerd, refused to admit her to this advanced standing as she had not completed her sophomore year at Cornell. Subsequently she again applied for admission and the new dean, Dr. James H. McBride, admitted her to the junior class. She seems to have complied with all the requirements of that school and to have been graduated with the M. D. degree in 1904.

An examination to remove the condition in pathology was held August 15, 1904, under the supervision of Dr. Charles D. Lockwood, and the papers of the five or six conditioned candidates were then sent to the member of the board who had this subject, to be marked. The paper of Dr. Claypole, filed with the records of the board, shows no indication of having been marked and we are advised that the paper was not marked by the examiner, for the reason that the question of Dr. Claypole's ineligibility had been raised by the statement from Cornell to the effect that she had not completed her second year. The case seems to have remained at this stage for some months. At the April meeting of the State Society it gave rise to some heated discussion; and considerable correspondence, pro and con, seems to have passed. Dr. Claypole wrote to the board asking why her license was withheld and was requested to appear before the board at the meeting of August 1, 1905.

In the person of her attorney, she appeared before the board at this meeting and claimed that all provisions of the law had been complied with; that she had been granted the degree of Ph. B. by Buchtell College in 1892, and the degree of M. S. by Cornell University in 1893. Her attorney argued that the rules of the Association of American Medical Colleges, which is the standard as provided by the California law, permitted at that time an allowance to holders of these academic degrees of one year on the required four year course, and did not specify to which year this credit was to apply; that consequently she had more than complied with the letter of the legal requirements. The old constitution of the Association of American Medical Colleges did not make the time of this credit clear, but the new constitution shows that such credit can only be given in the first year. In view of this fact, and that the Judicial Council of the Association of American Medical Colleges informed the board that such credit was confined to the first year, and that no college, so far as known, had ever allowed such credit in any year save the first, the board, by *unanimous* vote, refused to issue the certificate until Dr. Claypole had completed the required time by returning to college for the minimum legal period which seemed to be required—six weeks. It is stated that the board had not been officially notified that Dr. Claypole held the degree of Ph. B. and M. S. previous to the 1st of August, 1905.

It seems to have been assumed by the board that if Dr. Claypole proceeded legally in the matter, the case would come up in the Superior Court, where testimony and witnesses might be introduced and the contention of the board fully presented and backed by evidence. All previous cases against the board had been tried in the Superior Court. However, Dr. Claypole's attorney succeeded in securing a writ of mandamus from the Supreme Court, in bank, ordering the board to show cause why it should not issue a license to Dr. Claypole. In the Supreme Court no evidence and no witnesses may be introduced. As the board could not introduce witnesses or testimony before the Supreme Court to sustain its contention, the attorney for the board considered it unwise to take the chance of having an adverse decision rendered, and consequently the case was not argued before the Supreme Court, but the certificate was issued. Your Committee believes that the board followed rigidly the letter of the law and interpreted the ambiguity by academic usage and the opinion of the Judicial Council of the Association of American Medical Colleges.

ARE WE OWNED BY THE NOSTRUMS?

Some of our members who attended the Portland meeting of the American Medical Association, will remember that Dr. Frank Billings, of Chicago, read a paper before the section on medicine on the subject of the abuses of the proprietary medicine business, which attracted some attention. We understand that the Association was threatened with legal action in case the paper should be published. Agreeably to the wishes of the *Journal A. M. A.*, the President of the Association of State Medical Journals corresponded with the editors of such journals with a view to arranging for simultaneous publication of this paper in the *Journal A. M. A.* and a number of the State journals. Some person into whose hands this correspondence has fallen, seems to have been good enough to place it before one of the nostrum manufacturers mentioned by Dr. Billings, for we have recently received letters which we take pleasure in publishing below. (Vide infra.)

Dr. Billings' remarks relating to phenalgin were based upon a report of the Committee on Chemisty of the Council on Pharmacy and Chemistry of the A. M. A., which report gave analyses of this article showing it to be composed of acetanilid 57, sodium bicarb. 29, ammonium carb. 10. This report was signed by J. H. Long, Prof. of Chemistry in the Northwestern University Medical School, W. A. Puckner, Prof. of Chemistry in the School of Pharmacy of the University of Illinois, S. P. Sadtler, Prof. of Chemistry in the Philadelphia College of Pharmacy, Julius Steiglitz, Prof. of Chemistry in the University of Chicago, H. W. Wiley, Chief of the Bureau of Chemistry of the Department of Agriculture, and Max D. Slimmer, Ph. D.

It may be safely assumed that the findings of the committee were accurate and that nothing but the truth has been said. Are we then to be held up by this nostrum manufacturer and prevented from telling the truth about the things which we are being urged, through the advertising pages of a venal medical press, to use as medicines?

New York, U. S. A., November 10, 1905.

Editor CALIFORNIA STATE JOURNAL OF MEDICINE, San Francisco, Cal. Dear Doctor: We understand that the article read by Dr. Frank Billings of Chicago, Ill., at the Portland meeting of the American Medical Association, last July, entitled "The Secret Nostrum Evil," is being sent out to a number of medical journals for publication, although it has not as yet appeared in the *Journal of the American Medical Association* of Chicago, Illinois. The enclosed copy of a letter from our attorney, Bartow S. Weeks, of New York, to Dr. George H. Simmons, editor of the *Journal of the American Medical Association*, will be interesting in this connection. Yours truly,

ETNA CHEMICAL COMPANY.
Per ALLEN H. STILL,
Secretary and General Manager.

BARTOW S. WEEKS,
Attorney and Counselor at Law,
170 Broadway, New York.

August 8, 1905.

The Journal of the American Medical Association, Dr. George H. Simmons, Editor, 103 Dearborn Avenue, Chicago, Ill. Dear Sir: On behalf of the Etna Chemical Company, proprietors and manufacturers of "Phenalgin," I write to call your attention to an article by Dr. Frank Billings, entitled "The Secret Nostrum Evil," read before the American Medical Association at its last meeting, at Portland, Oregon, referring to the said preparation "Phenalgin" in a manner indicating that it was a quack remedy, and improper to be prescribed by physicians. The publication in your *Journal* of any such reference to "Phenalgin" I have advised my client would be libelous and not privileged.

I am also advised that you intend publishing a book containing formulæ in which mention is to be made of "Phenalgin." The publication of any alleged formulæ of "Phenalgin" in said book of formulæ, would be an infringement of the right of my client.

I write you therefore, to request that, in the publication of the proceedings of the Association, and in your book of formulæ, you omit entirely the name "Phenalgin," thereby avoiding the necessity for legal proceedings on this account.

Trusting to hear from you that you will refrain from the publication of any reference to "Phenalgin," as indicated, I beg to remain, Yours truly,

(Signed) BARTOW S. WEEKS.

THE SECRET NOSTRUM EVIL.*

By FRANK BILLINGS, M. D., Chicago.

I SHALL make no apology for bringing this subject before this section. Its importance to the profession of medicine and to the public justifies an exposition of the evil now. In no other country has this menace to the welfare of the people and to the best interests of scientific medicine developed as it has with us.

Probably the reason is that other countries, with one or two exceptions, protect the people against frauds in foods, medicines, etc.

Some day it is to be hoped that the Congress of the United States will enact a national pure food law which shall include the regulation of the copyrighting and exploitation of proprietary and other medicines.

Just here it will be well to say that the term "proprietary medicine" does not necessarily stamp a preparation or remedy as a nostrum. Webster says that a nostrum is "a medicine, the ingredients of which are kept secret for the purpose of restricting the profits of sale to the inventor or proprietor; a quack medicine." Some proprietary medicines are patented, or better, the process of manufacturing an article is patented. This patent protects the discoverer, or owner, in the manufacture of the medicine or drug for a period of 17 years. These preparations are ethical, in that they are not secret, for any one for a small fee may obtain from the patent office of the government a copy of the description of the process of manufacture and the actual chemical composition of any such patented drug or remedy. The chief harm which has come to us in America from the protection by patent of the process of making a chemical or drug has been the resulting high price of the product. Many of the synthetic chemical drugs, like antypyrin, phenacetin, etc., cost ten times their worth as compared with the price of the same drugs in Germany and in other countries. As stated, however, such really patented preparations are not secret; the composition is known. Some of them are of value therapeutically. Many of them are valueless. Some of them are harmful. Most of them we could easily get on without and fare better with the older, more simple remedies. Too many "made in Germany" specifics are shoved under our noses.

Now, as to the other proprietary medicines. All the so-called "patent medicines" put on the market for the public, and many of the preparations exploited to physicians and distributed by them to the public, are not patented, but are protected by a copyright or trade mark. Technically there is no difference between the secret proprietary medicines manufactured for physicians' use and the "patent medicines" exploited to the public. Both are protected by a copyright or trade mark name. Both are protected for an indefinite time. They are mixtures, as a rule, of several ingredients.

The relation of the physician to these preparations, however, is very different. Those "patent medi-

*Read in the Section on Practice of Medicine of the American Medical Association, at the Fifty-sixth Annual Session, July, 1905.

cines" which are advertised to the public are not considered ethical, and physicians abhor them and rightly condemn their use because they are often dangerous and always irrational as remedies. On the other hand, the manufacturers of those copyrighted proprietary medicines which are exploited to physicians by extravagant claims of specific therapeutic action, use the doctor as the middle man to distribute the cure-alls to the public.

Medicines so prepared that the busy physician could easily dispense them found a certain class of doctors eager to use them. The indications for use appeared on the label or in the accompanying literature. Tonics, blood and tissue builders, emenagogues, pain relievers, febrifuges, laxatives, calculi dissolvers, soporifics, bile promoters, heart tonics, cures tor Bright's disease, etc., have appeared in countless number, and some remedies offered are confidently presented as cures for not one, but a half dozen diseases or symptoms complex. Indeed, the claims of many of the promoters of this class of remedies do not differ in extravagance from the cure-all patent medicines offered directly to the public.

It has been easy to obtain testimonials of the alleged value of many of these remedies. Many even of the "faculty" have extolled them. Why, therefore, should not the less experienced physician use these "elegant," palatable, all-ready-to-use, with label-specifying-dose, disease-indicating remedies? Prominent physicians and the "faculty" had testimonials in the circulars sent with the samples indicating the virtues; why, therefore, use the simple proved remedies of the pharmacopeia, and especially as the latter would often necessitate the trouble of writing a real prescription?

To the rational physician most of the mixtures, even with the formulæ, are objectionable. Disease is never quite the same in different individuals, nor does the picture remain the same from day to day. The treatment must be modified to meet the varying problem of the morbid process. Rational therapy calls for simple prescriptions; but if there be an objection to mixtures with fixed and known formulæ, what must one say of mixtures of secret or semi-secret composition?

As Dr. Horatio C. Wood, Jr.,[1] says:

> A much more elusive and therefore dangerous evil lurks in the class of mixtures which attempt to cloak their secrecy with a deceptive show of frankness. I think you will grant that the physician is rarely justified in the use of remedies concerning which he has no knowledge, and I maintain that the publication by a drug firm, of whose integrity the physician is absolutely ignorant, of a professed list of ingredients of some mixture is not sufficient knowledge to pardon or to warrant the uses of that remedy. In the first place, if the published formula be correct, it is not enough to know simply the composition of a mixture, the exact quantities must also be known; there is a vast difference between the effects of 1 grain and of 100 grains of opium. Moreover, there is no means of knowing that the formula is a true one, for many of these corporations do not hesitate to pervert the truth.

Many of the promoters of these preparations claim, as chemists or as pharmacists, to be the discoverers of the wonderful remedies and the alleged unusual knowledge of chemistry or of skill in pharmacy has enabled the discoverer to develop in a mixture heretofore unknown, therapeutic qualities. Truth to tell, however, it is known that the proprietors are not always the manufacturers of the preparations they exploit and distribute. Many of the proprietary preparations are made by the large manufacturing pharmacists for the owners. Pharmaceutic skill is doubtless used in these instances, but it is the kind of skill which is for sale and is not personal.

I am informed that it is not unusual for one manufacturer of proprietary mixtures to have several so-called "companies," through which he can more easily exploit and distribute his products.

There is said to be a direct relation between the Dad Chemical Co., the Od Chemical Co., the Sultan Drug Co., the Rio Chemical Co., and the Peacock Chemical Co., or at least that they are linked together through one individual, and that Battle & Co. and the Lambert Pharmacal Co. are related to the above list. It is said, too, that the Vass Chemical Co., the Lotos Chemical Co. and the Valley Chemical Co. are one combination. Doubtless other combinations exist.

Curiosity recently prompted me to look through a number of medical journals, and I cannot resist the temptation to quote some of the preparations advertised in them: Aletris Cordial, Celerina, Neurilla, Respiton, San Metto, Cactina Pellets, Seng, Chionia, Thialion, Zarcol, Ecthol, Hagee's Cordial of Cod Liver Oil Compound, Mandragorine Tablets, Rheumagon, Ponca Compound, Ammophenin, Chloro-Bromon, Anasarcin, Bronchiline, Zematol, Zymoticine, Sulphogen, Labordine, Satyria, Manola, Cacodol, Eusoma, Leprosen, Sulpho-Naphtol, Pasavena, Neurosine, Germiletum, Bonn's Passiflora Tablets, Dioviburnia, Tongaline, Lithiated Hydrangea, Melachol, Gonoseptone, Calicolo, Solsul, Saliodin, and so on *ad infinitum*. These are only a few samples of what the physicians of the United States are asked to prescribe. But there are hundreds of secret preparations that are not advertised in medical journals, whose literature and samples come to us through the mails, etc. In the majority of cases, we do not know their contents, and in many instances an analysis shows that they are simply mixtures. Often a prescription written by a physician for a particular case is purloined, put up under a trade name and exploited as a cure-all.

As an illustration see the official announcement of the Council on Pharmacy and Chemistry regarding certain nostrums that have been exploited as synthetic chemical preparations guaranteed to cure everything I have no doubt that the majority of the physicians who have been prescribing phenalgin, antikamnia, sal-codeia (Bell), and ammonol were shocked when they found out that, according to the analyses, they had been giving a simple mixture of acetanilid, with bicarbonate or salicylate of sodium or carbonate of ammonium, with a little caffein in some instances. What physician will be foolish enough to use these preparations, when he can get the same of his druggist for at most one-tenth the cost, but especially what physician with a particle of medical knowledge would think of giving acetanilid if he knew it, in the majority of the conditions in which, according to the advertisers, these nostrums are indicated?

What physician would prescribe Gray's glycerin tonic, if he knew that its chief ingredients are gentian, dandelion, glycerin and sherry wine?[2] Could he not write a prescription as good and feel that he was his own judge of what constitutes a tonic?

Let me quote from the *Journal A. M. A.*[3] This, I am told, refers to an article advertised as a codliver oil preparation—one of the tasteless kind, that has been investigated by a sub-committee of the Council:

> We have recently had occasion to open a package of a well-known "Tasteless Cod Liver Oil" preparation. The circular which was wrapped about the bottle was replete with interesting information, especially for the patient, who obtains the remedy in the original package, as prescribed by his physician. He finds in it a list of the diseases in which the preparation does wonders—they range from the dread consumption to cystitis and hemorrhage of the kidney. Most interesting to us, however, is the statement that this compound "contains all the necessary elements of nutrition." It is too bad to disturb this beautiful vision by the report of the chemist. This shows that the product is quite free from oil or proteids; the only nutrient ingredients are alcohol, sugar, and perhaps glycerin. But the claims of the manufacturers are probably correct, for it contains carbon, hydrogen, oxygen, and probably a trace of nitrogen—so does gunpowder.
>
> Perhaps it will now be the turn of strychnin to be advertised as the ideal food. It seems superfluous to point out the moral of this tale.

It is not necessary to enter into a discussion as to whether we should ever prescribe secret proprietary medicines, for in the minds of intelligent men, even with only a smattering of medical knowledge, there

[1] "Proprietary Therapeutics," The *Journal A. M. A.*, June 10, 1905, p. 1826.

[2] "Each half ounce is stated to contain dilute phosphoric acid, 12 minims; gentian root, 10 grains; extract of taraxacum, 15 grains; glycerin, 80 minims; sherry wine, 80 minims; carminatives, q. s."—"Thesaurus of Proprietary Remedies," p. 148.

[3] June 17, 1905, p. 1943.

can be but one answer. A physician who has a true appreciation of his responsibilities, who has even ordinary knowledge of the action of drugs, and the danger from their unintelligent use, would not think of prescribing for the sick, who have placed themselves under his care, a preparation about which he knows nothing except what the manufacturer, about whom he knows less, had told him. While there is no excuse for prescribing these medicines, too many unthinking physicians are influenced to do so by the claptrap designated "literature," which the exploiters publish about their preparations.

There is not a secret proprietary preparation that has any more value, from a pharmaceutical or therapeutic standpoint than has the ordinary precription of the average general practitioner. Stop advertising them and they would be forgotten, just as "patent medicines" pass away if they are not advertised. A hark back 10 or 15 years will call to mind many concoctions which physicians were asked to prescribe, and which, according to the advertisements, performed wonders, but now are heard of no more. Their advertising literature stopped coming and the nostrum-prescribing doctor ceased to use them.

What is the cause of the nostrum evil? There are several.

1. Pharmacology and therapeutics are neglected relatively by many of our medical schools. Anatomy, physiology, pathology, diagnosis, etc., are emphasized and too often the usefulness and limitations of drugs are neglected. Too frequently drug nihilism is taught. If the student were fully taught the physiologic action of drugs, the art of prescribing, preferably single remedies or in the simple combination, using if he desires pharmacopeial preparations prepared by reliable manufacturing pharmacists, and at the same time if he were taught when not to rely on drugs, but frankly to prescribe for his patient a course of hygienic measures which alone would accomplish all that would be required, he would not be the willing dupe of the nostrum vendor, as he now is.

2. The reputable manufacturing pharmacists deserve great credit for the improvement they have made in pharmaceutical products. They have afforded us official preparations in the form of pills, tablets, syrups, tinctures, extracts, etc., which are elegant in appearance, often palatable and usually potent.

For this advance in pharmacy, a distinct credit to our country, we owe them our thanks.

Unfortunately, many of them have not stopped at this point, but have manufactured their own special mixtures, which are just as objectionable as the products of the special manufacturers. They, too, have been active with their agents in visiting physicians and in distributing "literature." This encourages drug-giving in specific mixtures for special symptoms, and is wrong. With one hand they do good work, with the other much evil is done.

3. The nostrum makers at first copied the methods of the reliable manufacturing chemists, in exploiting their products, but they have gone a step farther and have reached a point where one may say that they have subsidized the medical press. I know I am on dangerous ground when I make this statement, but right here is the chief cause—and the remedy. How many of our so-called medical journals are subsidized by medicine manufacturers I do not know, but all physicians know as well as I that there are many, and I do not refer to the so-called house organs. I unhesitatingly affirm that one-half of the medical journals of the country would be out of existence if it were not for the nostrum advertisements. Under the circumstances, therefore, can we expect these journals to say anything? Need we be surprised that scarcely a journal published the official report regarding the acetanilid mixtures, when the preparations hit were the best paying advertisements in the country?

What is the remedy? Publicity. The enlightenment of the profession. The truth regarding not only what the preparations contain, but who makes them. Certainly no honest manufacturer will object to this last proposition, and no honest physician will put up with less than the former.

The Council on Pharmacy and Chemistry has been created to investigate the non-official preparations, to find out the truth about them, and to publish its findings. It is not necessary to repeat here the results of the work already done by this body. All physicians have read, or may read all about it. In my opinion there bas been no movement undertaken by the American Medical Association that will be so far reaching as this one to rid us of the blight of the nostrum evil. For the first time, we see the possibility of the elimination of a part, at least, of this curse to American medicine. It is the first practical solution offered of a most difficult problem.

But—and I want to emphasize what I am about to say—the movement will have the most determined opposition that money can bring. Millions are being made annually by the nostrum manufacturers, and they will not sit idly by and see this wealth-producing business done away with if they can prevent it. It won't be an open fight, for their business will not stand publicity. They will have with them those so-called medical journals which are published solely in their interests.

This movement will have the sympathy of every thinking physician of the country, but sympathy does not win battles. In this fight those who are representing us should have all the support we can give. In society meetings especially we should aid in the propaganda by helping to enlighten and to interest those of our profession who have given the matter no thought. We should support those journals that represent us, and not tolerate in our offices those that we know to be subsidized and to represent their advertisers rather than their readers.

Explain to your friends and patients that practically every newspaper in the United States is a silent partner in the nostrum fraud business. That it is bound to silence and to aid in defrauding the people into using alcoholic nostrums by the following clauses in its advertising contracts with the nostrum trust:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper, in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

Originally all lepers in Norway were confined to institutions. At the present time, however, only indigent lepers and those who can not be suitably cared for at home are required to enter an asylum, where they live under the best hygienic conditions. Other patients are allowed to remain at home, with the understanding that they sleep alone and, if possible, have separate rooms, that their clothing, linen and eating utensils be used by no one else, and that proper precautions be taken in the washing of linen. Dressings and bandages must be burned. Under these regulations the number of lepers in Norway has decreased from 2,870 in 1856 to 577 in 1900. Banishment to a particular island is practiced in the Sandwich Islands. Segregation of lepers should be brought about in this country.—*Journal A. M. A.*

MEDICAL LAWS AND THE INFLUENCES THAT MOULD THEM.

By S. D. VAN METER, Denver.

PART I.

Medical Laws.

Within the range of the subject "Medical Laws" very properly may be included many different statutes, but for the purpose of this paper the subject will be confined to laws regulating the practice of medicine. These statutes, while apparently simple enough in their phraseology, present many phases of delicate construction and application; and few are they who realize their full purpose and understand their operation until they have had experience in their administration. * * * It hardly seems necessary to state that the one purpose or object of these laws is to protect the public health by regulating medical licensure on the basis of an educational and moral qualification, the standard of which will insure the proper care of the sick and injured. * * *

As the one problem in medical legislation is that of maintaining a uniform educational standard as a basis of licensure it can not be too strongly stated that until the profession, the legislators and the public can be educated to the point of realizing that the state, through the medium of the medical law and its administrative board, must as a safeguard to the public health, fix a uniform educational standard for all men and women engaged in the healing art irrespective of school or pathy, there exists a great danger of lowering the standard of licensure by the enactment of laws fixing different standards for the various schools. The dissensions in the profession and the ignorance on the part of the laity as to what should be, will allow that false doctrine, the progeny of the sciolists, which was conceived in iniquity, born in sin and is now being nurtured and reared by its infamous parents, and which teaches that it is not necessary for the practitioners of one school to possess as much education as another, to displace the keystone of the uniform educational standard for all supporting arch of our present law, viz., practitioners. * * *

The inconsistencies of many of our state statutes have periodically brought forth advocates for a national law regulating the practice of medicine, and undoubtedly had our form of government been so arranged as to permit of such a system of medical licensure, it would be a great improvement on the regime in vogue. However, when we adopted our National Constitution the control of the professions was not delegated to the Federal Government, and in consequence remained within the police power of the states. Therefore, it would be necessary for the states to relinquish their rights to the Federal Government before any Federal statute regulating the practice of medicine could be made legal; which, while possible in itself, would establish a precedent in legislation, the very suggestion of which would nip the attempt in its very outset. The old question of state rights would be immediately raised, and we all know how wise it is to let that subject alone. * * *

To-day we have the majority of the license boards following the method of universal, uniform written examination. In addition as prerequisite to application, most boards insist upon the possession of a medical diploma from a school which has ostensibly enforced a curriculum of study fixed by the board, and required of all students certain preliminary courses of instruction as a *sine qua non* to matriculation. It does not require much investigation to see how deficient this method is, if any regard is made for equity and justice to all classes of applicants. The natural inference would be that it must be the best method or the majority of boards throughout the country would not have adopted it. A little study of the subject reveals that universal written examination of applicants is the easiest way for a board to get through their work. It enables the board to reduce its labors to almost a mechanical process, wherein but little mental effort is expended, and very frequently the question lists and grading of papers are left to clerical assistants. This opportunity of relief from hard labor, which the careful consideration of the question involves, is the chief explanation of why the method has been adopted. Were it supplemented by the boards taking into consideration the examinations made by other boards, many of the objectionable features of the method would be removed, but as nothing is ever settled until it is settled right, other features of this common method which are wrong will in time, of necessity, be changed. Very little objection could be raised by recent graduates in being required to take a rigid State Board examination, but it need not be repeated by every board to whom they apply for license. However, no sane person can maintain that it is necessary to require written examinations of graduates of many of our best schools to enable licensing boards to decide as to their educational qualification as applicants. Furthermore, it is perfectly plain that a statutory provision making it mandatory on the part of a board to examine by the written method all applicants, irrespective of past record, age or years in practice, limits the discretionary power of the board—amounts to an insult to the judgment and integrity of its members, and makes their duties clerical, instead of quasi judicial—as they should, and must be, if the proper administration of the law is to be expected. The injustice and inequity of the universal examination method fall hardest upon the old established practioner, who, for reasons of necessity or choice, wishes to make a change of residence. Experienced and well qualified as a physician and surgeon, he is in no way prepared to stand the test of qualification as offered by the average state board written examination. To obviate the injustice of the method to the established practitioner, some good intentioned earnest workers have labored hard and long in perfecting the intricate detail of the scheme of so-called reciprocity in state licensure; well intended, but so burdened with nullifying provisos that it is no wonder it has not accomplished more good than it has. Nearly all of these reciprocity sections provide that the license board operating thereunder shall not accept the license from another state as evidence of educational qualification, unless the state granting the license accept their certificates, no matter how high a standard the other state is known to maintain. The injustice to the applicant who has qualified is not hard to see. He is made to suffer for the shortcomings of the board and statute of the state whence he hails, by the board before whom he stands as an applicant for license. Such retaliative measures would hardly be expected in a liberal profession.

The proper solution of this vexatious problem of standard and method of determining whether an applicant possesses qualifications equivalent to the adopted standard is approached, if not fully accomplished, in the method made possible by the recent amendments to the Colorado law, and now administered by our Board of Examiners. * * *

Our method of administering this most important part of a medical registration law permits us to use any legitimate means of ascertaining a knowledge of an applicant's qualifications, and allows a board to use that method or those methods applicable to the case in question, and insures the administration of an equity impossible by any one method. The only fault found with this plan is a fear on the part of the

uninformed that a board will abuse such wide discretionary power. In answer to such opposition it is sufficient to say that if you start with the suggestion that the members of your board are dishonest and unscrupulous you might as well go no further because the law can not be drawn that will accomplish aught if administered by such a board.

Another defective feature often incorporated in medical laws requiring universal uniform written examination is that of insisting upon certain preliminary education and a diploma of a recognized school as a prerequisite to admission to examination. These requirements are right and just so far as determining the qualification of applicants is concerned, and no board should, except in rare instauces, consider an applicant qualified who does not possess such credentials. **Nevertheless, it is a serious mistake to insist upon them as prerequisite to application.** Nothing in particular, except the labor of investigation or examination, is saved thereby, while much is lost in the way of sacrifice of prestige with the public and the control of the very class, viz., the irregulars, the very people upon whom medical boards should expend most of their time and energy. **The members of the profession who make an honest effort to equip and qualify themselves need but little regulating. The men who are trying to get a legal standing without making any effort to qualify themselves are the people for whom the law is most needed.** To refuse the votary of any *pathy* the privilege of applying for a license because he has not received an M. D. immediately **places that individual in position of advantage when arraigned in court for illegal practice.** Specious though the stand may be, his plea that he is qualified, and stands ready and willing to show his qualifications, but the statute and board administering it will not allow him such opportunity until he has pursued a course of study he claims he does not believe in, is a hard one to overcome when arguing to the average court or jury. Further, this same unnecessary provision **gives the irregulars their greatest foothold when trying to secure separate laws regulating their special pathy,** because our legislators must be expected to listen to anything which can be made to sound unfair or oppressive to any class. If the disciple of any cult can show that he is not allowed to apply for a license in any state until he has taken the course prescribed and taught by another school or schools, right then and there he is going to have a fair opening toward securing separate legislation, which, when enacted, gives him equal legal standing with the oldest and best established practitioner in the state. **Too much stress can not be laid upon this point as a salient defect of many of our medical laws, but I am happy to say that it, nor the foolish provision of examining upon materia medica and therapeutics, does not exist in Colorado, nor do we have separate regulation of the different pathies—as obtains, to the discredit of medicine and the disadvantage of the people, in many of our states.** Could the original plan, as was first adopted in many of the states and exists still in Alabama and Nortb Carolina, of the state delegating the full control of practice to the State Medical Society, have been continued it would have been fortunate, as the conditions (the shortsighted school jealousies) that led to its abandonment will soon be removed. The knell of sectarian medicine, so far as the administration of registration law, where it never had any place, has been rung, and to a great extent has been made certain through education and its development of liberality. Osler sounded the pulse of the profession when he penned the following:

"It is now time that the homeopathic brethren were coming into the fold. It is now long past the time when a difference in drugs should separate men with the same hope. The homeopaths are awake, but they must realize the anomaly of their position. The original quarrel is ours, but they should not allow themselves to be separated by a shibboleth that is inconsistent with their practice to-day. And the rent in the robe of Esculapius is more grievous in this country than elsewhere in the world." * * *

With the hopeful signs that sectarian medicine is soon to be a thing of the past, and the profession will be composed of educated men of tolerant and considerate mien toward those who may differ with them upon mooted points, we may expect to see state society control of the licensing bodies reinstated. The medical society of the near future, composed as it will be of men of education, and well trained in the science and art of medicine, but in many instances holding decidedly different views on therapeutics, will be far better qualified to select the personnel of the administrative board than the State Central Committee of the political party which happens to be in power. Until we have such a society it must of necessity fall upon the several state societies to exert their efforts in trying to secure the best men possible for membership on the State Medical Licensing Board. I believe in composite boards, as **when the statute is so drawn as to render it unnecessary to raise sectarian questions it becomes a great school for the members of different therapeutical beliefs to learn that the other man is just as earnest as he in raising the standard of medical education.** * * * The policy of appointing a board for each school of medicine was the outcome of petty school jealousies, **which could all have been averted had the state refused to recognize any school, and adopted the plan of not requiring an examination upon the subjects of materia medica and therapeutics.** The rapid multiplication of schools soon proved to the legislative bodies the bad precedent they had established and the utter futility of trying to give each pathy a separate board. It also brought the educated members of all schools to see that it was absolutely necessary to bury forever sectarian medicine when administering medical registration law, that license boards did not meet to fight for the supremacy of therapeutical beliefs, but to sit as fair-minded men to decide the one question of whether or not the applicants for license who presented themselves for examination possessed the proper standard of educational and moral qualifications to make them safe practitioners in the field of medicine. It is, however, surprising to see how many examiners, even now, think it impossible to decide whether an applicant possesses the educatioual qualifications to make him a safe man to license unless he be examined on materia medica. Personally I should be satisfied to decide after the privilege of examining an applicant on pathology and physiology.

Another defect in our laws, in a great measure due to the method of selecting and appointing the members of our boards, is that of not securing men qualified by training and natural tendencies to make good examiners. This is manifest in many of the lists of questions chosen by different boards throughout the country as a test of qualification. Many of these published questions must be acknowledged as unfair and wholly inadequate to elicit the desired information, viz., the applicant's real knowledge of the subject. Too frequently they are more calculated to determine what the applicant does not, instead of what he does know. It must be admitted that there is much that the best of men do not know, and that a fool can ask questions that a wise man cannot auswer. The profession cannot be too strongly urged to lend their constant efforts in trying to influence the appointing power to select men who are capable, and who will discharge their duty with credit and honor to the state and the profession. Let the men who will make good examiners be advocated irrespective of school or faction, as those things should have nothing to do with the selection of the personnel of an examining board. * * *

One of the most important features of a medical law is the provision relative to the prosecution of those who break it. These laws are really of remedial nature, though generally classed as criminal. Should a court consider the statute purely criminal, and to be construed with the customary strictness of a criminal act, it becomes very difficult to secure a conviction. Therein lies the chief protection of the quack and the cause of the failure of the law to accomplish its main object, viz., to protect the public against charlatanry. One only has to scan the pages of our magazines and daily press to see that quackery is rampant in almost every state in the union, and especially in those which boast of their high standard of medical licensure. In many states all energy is expended in seeing that no one is licensed unless he possess an extra high standard of qualification, but nothing is done to stop the unlicensed quack, who plies his trade with impunity. In others the process of prosecution is hedged about with so much "red tape" that it takes years to secure a decision, and the authorities are either derelict or spasmodic in their efforts to enforce the law. * * *

Last, but not least, of the salient features of a medical law that I wish to consider in this paper is the proper definition of what constitutes the practice of medicine. No section of this, or any other statute has been the battleground of so much legal quibbling, and the greatest difference of opinion exists in the Supreme Court decisions handed down in cases depending upon what constitutes the practice of medicine. The diction of the several statutes in a measure explains this difference of opinion, but not altogether, as many times where we see the widest difference of opinion we find the working of the statutes the same or strikingly similar. The difficulty has been to get a definition sufficiently concise to prevent misconstruction, and at the same time comprehensive enough to cover all classes of infraction of the law. The essential basis of any such definition must be: "The holding oneself out as being engaged in the care of sick or injured human beings," and that irrespective of the form of treatment, because any attempt to make the form of treatment an essential part of a definition not only renders conciseness an impossibility, but necessitates the procuring of evidence that is next to the impossible when prosecuting a case under such a statute. * * *

PART II.

The Influences that Mold Medical Laws.

As is true in the history of all problems involving questions of public welfare, the history of medical legislation is replete with bitter battles waged between contending forces. It is, however, specially interesting to study the nature of the forces influencing medical legislation, because we find them so different from what we should naturally expect. For the purpose of consideration they may be classified after the true Hibernian method, viz., for and against. Among the former we should expect to see the desire upon the part of the people to protect themselves against incompetency, quackery and all that those terms embrace, the strongest factor in the enactment of these statutes. But in no instance can it be asserted that the people have ever taken the lead or shown the least interest in the enactment of a medical law. On the other hand, we find that it has been the medical profession who have taken the initiative in securing the passage of these laws, primarily intended for the protection of the public health, and beneficial to the profession only in an indirect way. The fact that medical men have been so earnest, unselfish and persistent in their support of these laws, in the face of the apathy and indifference manifested by the people, has always militated against successful medical legislation, because it is difficult to establish the fact with many persons, especially members of our legislature, that there exists in the heart of man such a thing as a desire to labor for principle.

Our efforts, however, have to a great extent been poorly generalled, disconcerted and spasmodic in character, with no definite plan for action common to any two states, and frequently in the same state we find each succeeding legislative committee totally disregarding the work and plans of its predecessor. They discover too late that they would have been more successful had they profited by the experience of those who had gone before them. What the profession needs, and must have before there can be uniform ideas regarding medical legislation and concerted, definite plan of action, is to have some deliberative body meet, discuss and agree upon the proper principles underlying the several essential features of a medical law. Such a body shoud be made up of at least one representative from each state and territory, and the federal district, and should hold a session of fifteen to thirty days, in which time they could agree upon the essential features of a model law, and adopt a plan of action to be recommended to the several state committees. An attempt to secure such a model act was made at the National Legislative Council two years ago, but, owing to the necessity of carrying on their labors by correspondence among the members of the committee, it failed to accomplish anything. For the same reason so many of our A. M. A. committees who meet for a few moments during the annual session, seldom with a majority present, and frequently do not meet at all, fail to achieve aught toward the purpose for which they were appointed. It takes time and deliberate thought to accomplish anything along these lines, and the sooner the profession realizes the necessity of tackling these problems in the proper manner, the sooner we may expect success to crown our present disconcerted, spasmodic efforts.

Passing on to the consideration of the forces influencing medical legislation adversely, we find the spirit of charlatanism to be the all-important factor or force that has blocked the progress of medical legislation in the past; and in the future it will be the most formidable obstacle to overcome in correcting the defects in our existing laws. In considering charlatanary in this phase we must not forget that it is not limited to the advertising and blatant quack. We see its diabolical influence springing from sources we should not suspect. A wolf in disguise is far more dangerous than otherwise, and it is not surprising that we should find so many of our older doctors losing faith in the ethics of the profession as a whole. It is no wonder that we see pessimism on the increase, when sharp practice and deeds that would not be considered honorable among highway robbers are indulged in by members high in the profession. True, the quack has his direct influence with legislators in a material way, and indirectly through the venal press, but the load that the profession carries in the quacks who are sufficiently shrewd to remain within the ranks is incalculable. Their acts are like one's own misdeeds, difficult to defend and ever in the pathway to success. As coadjutors of the quack may be named that horde of deluded mortals, who through the teaching of medico-religious vagaries become fanatical, and who at the very suggestion of a law that might indirectly interfere with the practice of some tenet of their faith, throw their entire membership in absolute solidarity against the measure which in reality is designed to protect them against imposture. It must be admitted the most devout Faith Curist wants and seeks the services of a physician when pain gains supremacy, be it a belief, a phantom or a reality—and furthermore, they are then very anxious to have the best talent the community affords. These self-same fanatics, whose creed is so full of deity and love as to make it meaningless to the ordinary individual, join forces with those human vam-

pires, the quacks and professional abortionists, and sing "Hosannahs to God on High" when they have defeated a measure calculated to raise the educational and moral standard of those to whose tender mercy the sick and suffering are to be given.

How it is best to deal with these people is a difficult problem. Personally, I believe it is better to assume the attitude we generally find effective in handling a hysteric—one of sympathy, guarded by firmness; sympathy for their ignorance and misdirected efforts, but a firmness that will not allow imposture. The disciple of any faith must be allowed full religious liberty, but he must be made to understand that **a creed cannot be so construed as to allow him to assume the offices of a profession which the state has regulated by statute,** any more than the Mormon can continue in polygamy under the guise that it is a tenet of his religious belief. It is better, however, to let these religious fanatics indulge in their incantations so long as they do so as duly ordained ministers of their church, but when any one attempts to deceive the public as being engaged in the healing art under the guise of a religion or gift from heaven, he becomes a dangerous individual to society, and should be made to feel the strong arm of the law. It must be remembered that in protecting the public health it is the worst of folly to attempt to accomplish it all through the medium of the medical registration law. The misguided fanatic who withholds surgical aid from the child who may be bleeding to death can and should be handled under the statute which imposes a penalty upon the parent or guardian who fails to care for his child or ward. Again, when fanaticism causes its votaries to deny the existence of smallpox or the other well-known contagious diseases, the proper enforcement of the public health and quarantine statutes will prove far more effective. In fact, they seldom fail in prosecution, because the public are informed as to the nature, and know the danger of spreading contagious diseases.

The most potent force that influences medical legislation adversely, and one for which the profession have themselves to blame, is the profound apathy and indifference the majority of its members manifest in matters pertaining to the enactment or amending of these statutes. With unwarranted school dissensions and this apathy on the part of the profession, how can we expect a few enthusiastic members to cope with the solid front of the opposition? Of the sixteen hundred registered physicians in Colorado, less than three hundred contributed to the legislative fund during the last two years, and counting the total contributions from individual members, and society appropriation during that period of time, your committee has received about thirty cents per annum per member.

Further, it should be remembered, it is far easier to oppose legislation to a successful end than to secure the passage of the most just bill imaginable. It is to be sorely regretted that such a large portion of the profession are so apathetic in legislative matters, but when we consider the life and duties of the average medical man it is not surprising. Hard worked, underpaid and pinned down to the routine of practice in which he is, as a rule, absolutely czar as to opinions and conditions, it is no wonder he develops traits of character unfavorable toward making him an integral unit of an organized body whose key to success lies in following those in command. It is calculated to make each one a leader, but we all know that in battle we need more privates than officers. This phase of our life is unfortunate, and for that reason should we cultivate consultation and society intercourse on every turn. The ablest men can often learn lessons of value from their inferiors. Our legal friends have the decided advantage of us, as they are daily crossing swords with their brother practitioners, which has the effect to keep down their bump of conceit. Lawyers frequently engage in the most formidable fight before the bar, in which each may assail the judgment and opinion of the other in the most vigorous manner and a few moments later meet as the best of friends. How is it with us? If in consultation we happen to differ in opinion, what diplomacy, what choice of language do we have to resort to lest we offend? Often then the over-sensitive nature our environment and life have developed causes us to consider such difference of opinion as an insult to our professional ability.

Nothing strengthens a man in his chances of winning a contest more than to realize his own shortcomings. **We as a profession should recognize the danger of becoming narrow-minded and autocratic through the conditions peculiar to our work, and do all in our power toward the development of the broad spirit of freemasonry, liberality and consideration of the opinion of others.**

In many states the dissension in the profession, caused by school jealousies and the attempt on the part of the regular school to abolish sectarian medicine by force instead of by argument and due consideration of the rights of others to their opinions, has been in the past, and is still, an influence that is damaging to the progress of medical legislation. We in Colorado are fortunate in regard to this matter, as the representatives from the majority of schools some time ago recognized the absolute needlessness of dragging the question of sectarianism in matters pertaining to medical licensure. They saw that the state **could never afford to recognize any school of medicine or attempt to regulate the practice of medicine upon any other basis than that of a uniform educational standard common to all practitioners, irrespective of therapeutical belief.** It is to be hoped that in the future no one will be so shortsighted as to stir up any dissension upon this point, and start anew the strife that was in the past a serious obstacle toward the enactment of a good medical law. There was a time, and in some localities the influence still obtains, although it will not last long, when the commercial medical school played an important role in moulding our medical registration law. Bitter has been the opposition from such institutions, but it is gratifying to note that in no instance have they succeeded in the end, and today those back of commercial medical colleges might as well, as did Belshazzar of old, read the handwriting on the wall: "*Mene, Mene, Tekel, Upharsin.*" They have not been driven from the field by any legislation or opposition. The natural trend of affairs has made it impossible to give the course of instruction demanded by the rapid advances in medicine outside of a medical institution equipped as cannot be expected of other than one that is well endowed. This means that it costs more to give such a course of instruction than is charged in our best universities, and while a few men may bolster up a school in which they take pride, having perhaps been identified with it since the granting of its charter, and in which good work was done in its day, but having the present conditions to reckon with, it is only a matter of a short time until such institutions must either secure ample endowment to obtain the proper equipment of its plant in keeping with a modern university, consolidate with some well endowed institution, or go out of business.

Notice.

Information Wanted as to the Practical Lives of the Blind.—Dr. George M. Gould, 1722 Walnut street, Philadelphia, will be grateful for any trustworthy information as to the methods which have been devised by the blind in overcoming their disability or in gaining a livelihood. Accounts of such lives, anecdotes, references to literature, etc., will be appreciated.

HERZSTEIN LECTURES IN THE UNIVERSITY OF CALIFORNIA FOR 1905.

Special Chemical Problems Related to Practical Medicine.

Synopsis furnished to the JOURNAL by the lecturer.

LECTURE.—II.

The Theory of Disinfection.

By ALONZO ENGLEBERT TAYLOR.

Germicides may be divided into two groups: (a) those that act by structural alteration, such as mercury, acids, alcohol, formaldehyde, etc.; (b) those that act by inhibition of function, such as hydrocyanic acid, chloroform. Destruction of structure will always be followed by disturbance of functiou, and vice versa, but in the two groups the primary direct insult will be to structure or to function. In higher species, death from suffocation, hydrocyanic acid, etc., is due to the sudden inhibition of an essential function; in phosphorus and arsenic poisouing, on the other hand, the primary insult is to structure.

In the consideration of the germicides that act by alteration of structure we shall encounter many facts that are uot ouly of practical importance, but which illustrate the realization in biological material of several general physical laws.

Germicides that affect primarily the structure of bacteria act so far as we know in the following ways: through oxydation, dehydration, coagulatiou, through chemical combinatiou of the germicide with some constituent of the bacterial body, through alteration of the cell membrane, through a disturbance in the saline balance, and by virtue of colloidal properties.

Of the germicides that act primarily by oxydation are potassium permanganate, the peroxides, chlorine, iodine and bromide and all salts coutaining these elements as free gases, hydrochloric, nitric and sulphuric acids, the oxides and chlorides of lime, iron and manganese, cupric sulphate and many others. The oxydation is euhanced by the preseuce of oxygen, and also by sunlight. These germicides possess to greater or less degree the power of penetration; those that are themselves used up in the reaction with the organic matter, like hydrogen peroxide and potassium permanganate, possess little power of penetration; the acids, the halogens, and most of the metallic salts are not used up so much in the course of the reactions they inaugurate and have a corresponding power of penetration. These germicides are as a rule rapid in their disinfection, and their properties of penetration and rapidity of action are what have made them favorites for many types of disinfection. For example, bromide, iodiue and nitric acid are the most certain germicides to be employed in the disinfection of the wounds suspected of infection with the bacillus of tetanus, the commoner germicides like mercuric chloride lack the necessary penetrating power. For the sterilization of surgical instruments and dressings most of these substances are entirely unadapted.

The germicides that act by dehydration are few. Nitric and sulphuric acids, lye, chromic acid, zinc chloride and alcohol when used in concentrated solutions act largely by dehydration. The lye acts further by saponifying the lipoidal substances.

The germicides that act purely by coagulation are few. Alcohol does so act, in addition to being a dehydrating ageut and a solvent for lipoidal substances.

A large number of germicides act through combination with some component of the bacterial body. The salts of mercury, the different salts of silver that are soluble in water, the salts of copper, carbolic acid, formaldehyde, liquor cresolis compositus and the cresols, and many others act apparently by effecting chemical combinations with substances in the bacteria, with the resultant death of the germ. Some of these combinations are soluble, some are insoluble, some are colloidal. These same substances effect similar combinations with the constituents of animal tissues, and there is some likelihood that they may combine with these as readily or more readily than with the bacteria.

That germicides might act by producing alterations in the cell membrane is a possibility that has been made very attractive by investigations in cytolysis. The cell wall may be looked upon as a colloid of a more dense phase thau the protoplasm of the cell. This membrane is rich in fatty substances, and iu the physical sense we may speak of it as a semi-permeable membrane. The researches on the cytolysis of the red corpuscle have taught us that the integrity of the cell depends upon the preservation of the physical characteristics of this cell membrane; the respiration of the bacterium, the passage iuwards of nutrieut material, the passage outward of the products of metabolism must be dependent upon the integrity of the cell membrane. Some of our most active germicides, like alcohol, liquor cresolis compositus, creolin and many others of the synthetic type, have the power of dissolving lipoidal substances and in this manner the integrity of the bacterial cell wall would be destroyed. That these substances act in this way alone, is not known.

A proper balance in the saline medium is of the greatest importance to the life of many types. The investigatious of Loeb have indicated that saline mixtures that are innocuous to one may be toxic to another species. Sea water is germicidal to many pathogenic bacteria, and it is more rational to suppose that this is due to particular ionic relations than to a direct toxicity. The migrations of ions through the cell wall of unicellular organisms have not been well investigated. If we may judge by the relations in red blood cells, however, these migrations display great elective tendencies.

The known facts for red corpuscles furnish a good illustratiou of the possible magnitude of these saline relatious within and without a cell. The cell wall of the red corpuscle is permeable to the following non-electrolytes: the alcohols, aldehydes, esters, urea, antipyrine, biliary acids and salts, and to many other substances; it is impermeable to the various sugars, to most coal-tar substances, and to the amido bodies as a group. Of the electrolytic metallic salts, the cations sodium, potassium, lithium, calcium and magnesium cannot pass the cell wall, but the ammonium ion does pass in. That the ions of mercury, silver and copper pass into the red corpuscle has not been demonstrated. The hydrogen ion can pass in. Of anions, the hydrodlyl ion, and the ions SO_4, NO_3, CO_3, bromine, iodine, and the anions of many organic acids, as citrates, acetates, pass through the cell wall.

Of the undissociated salts, all diffuse to some extent when in hypertouic solution. The velocities of these diffusions, both ionic and molecular, is quite different with the different substances. If now we suppose that bacterial cells display similar electivities, it becomes apparent that the saline relations of the system may modify greatly the resistance of bacteria to germicidal action of the metallic salts. It is easily possible, also, that from these ion migrations the death of the cell might result. There are to my knowledge no experimental investigations of this matter in their relations to bacteria.

Lastly we have germicides consisting of metals in the colloidal state. Silver, mercury, gold, platinum, copper, nickel when in colloidal suspension act as pronounced germicides. The same is true of the colloidal suspensions of the combination of these metals with organic molecules. Colloidal silver and copper are the most powerful germicides, acting on some algæ at a dilution of 1:100,000,000, where bichloride of mercury requires 1:100,000. For their action there are several possibilities. Firstly, the colloid may pass into combination with some con-

stituent of the bacterial protoplasm; this is improbable, since being colloidal the substance has no power of diffusion into the cell. Secondly, the colloidal metal might act by the spreading of a film over the bacterial wall, thus excluding oxygen, and disturbing the ingress of nutrient and the egress of metabolic products. Thirdly, the colloidal metal may act as a positive catalysor to some of the body functions of the bacterium, to oxydation, to autolysis. For the colloidal complex combinations, it is possible that the silver is dissociated, and then enters into ion combinations with some constituent of the bacterial cell.

It is apparent that many germicides possess more than one of these properties, and act in more than one way. It is also apparent that all these germicides must in a general sense act toward the cells of a higher species as they do towards the bacterial cell. It follows that the results of experimental studies with suspensions of bacteria cannot be held to apply without question to the problem of germicidal action in tissues.

Quantitative relations and the influence of different physical states upon germicidal action. In how far is disinfection accomplished by the molecule? In how far by ions? In many germicides it is the molecule that acts. This is not only true of the organic substances that are not subject to any measurable dissociation (such as carbolic acid and formaldehyde); it is also true of the halogens, of nitric and sulphuric acids and of some electrolytes, when used in concentration. For many of the electrolytes, however, the germicidal action is in general terms proportional to the dissociation. For the salts of mercury it has been shown that the power of germicidal action in different concentrations is related directly to the dissociation, and this germicidal action is the property of the mercuric ion and not of the anion. Thus solutions of the bichloride, bromide, iodide and cyanide of mercury have the same germicidal action when they contain the same number of dissociated ions of mercury, although the total concentrations of the different salts is quite different. A solution of mercuric cyanide to be equal in germicidal strength to a solution of corrosive sublimate will have to contain four times as much of the salt, since the dissociation is only one-fourth as great; in short, the germicidal action of solutions of these mercury salts runs parallel to their power to conduct the electrical current, not to the strength of the solutions by weight. What does the work is the dissociated mercuric ion, not the chlorine, bromine or cyanide ion, not the undissociated molecule. This means that within certain limits a weak solution of corrosive sublimate is practically as active a germicide as a stronger one, up to the point where the solution becomes so strong as to exert a caustic action. It does not mean at all that the ideal solution for a wound is one of ionic action alone, since in many wounds a penetrating action, the caustic action, may be highly desirable. But for the simple action on bacteria themselves, the germicidal action seems solely related to the mercuric ion.

When, however, we come to other salts of mercury, we observe different relations. The nitrate, sulphate and acetate of mercury are all more soluble than the bichloride, and more highly dissociated, nevertheless they are weaker germicides. The nitrate of mercury, in solution of the same degree of dissociation as a solution of the bichloride, is only about one-fifth as strong a germicide; in some way, therefore, the anion seems to hinder the germicidal action of the mercuric ion. The nitrate of mercury is a much more active caustic, but a much less active germicide than the bichloride.

The investigations with the salts of silver, copper and gold have shown further that the germicidal action is not parallel to the electrolytic dissociation. In some instances it seems as if the anions participated in the disinfection, in some the entire molecule seems to participate, in other instances the anions seem to antagonize the germicidal intensity of the cations.

For the many deviations from the rule that the germicidal action of a metallic salt is a function of the dissociated cation, there are several considerations that have a bearing on the relations. The different metals do not diffuse with the same velocity. To destroy the germ the ion must enter the bacterial cell (unless it act on the lipoidal membrane.) This act of diffusion requires time, and for different metals, different times. The time limit set to the experiment must take this difference into account, and for the experiment with different metallic salts we must allow that time which experiments on diffusion membranes show is needed, and then compare the germicidal results. When this is done, the results are more in accord with the theory. The saline content of the medium must be controlled, since this would have an influence on the ion diffusion, because for each ion that passes into the germ another ion of the same electrical sign must diffuse out, and this would depend on the saline relations.

Another factor is the diffusibility of the anion. If in a case of a certain mercury salt only the mercury can pass into the cell and the anion cannot, a different state of affairs will be produced than in the case of another salt in which the anion can also pass into the cell. The possibilities of complex combinations with salts and protoplasmic constituents would be obviously different in the two experiments.

Salts with a low toxicity might easily fail to realize the parallelism between germicidal action and dissociation, because for every ion that passes into the cell of the germ, one ion of the same electrical sign must pass out. If now the ion under investigation were not highly toxic, many ions would need to enter the cell in order to kill, and it might be that there were not in the cell enough ions of the same sign to pass out; under such circumstances, no parallelism could be expected to obtain. In the case of a very toxic ion, the reciprocal outwandering ion would be more easily available.

It is possible to modify the dissociation of metallic salts by alterations in the solvent, and practical advantage is often taken of this fact. If to a solution of corrosive sublimate we add any chloride or hydrochloric acid, we diminish the dissociation of the mercuric chloride, and thus reduce the germicidal strength. In the common tablets of corrosive sublimate, some salt, usually ammonium chloride, is added in order to increase the solubility. This weakens the proportional germicidal strength, a 1-1000 solution without the chloride is much more germicidal than a 1-1000 solution containing the salt. In the sterilization of instruments and materials, therefore, the chloride would better be absent. When the solution is to be used on the operation wound, a new fact enters. Ammonium chloride prevents in large part the precipitation of a protein-mercury combination, which would be an evil were it to line a wound. Healing will therefore follow better in a wound treated with corrosive sublimate containing ammonium chloride than with the simple solution. The solution with the ammonium chloride has also a greater penetrating power, and would therefore be preferable in the cleansing of an accidental wound, despite its lesser germicidal power.

If we prepare a solution of corrosive sublimate in absolute alcohol, we will have a solution that is practically not dissociated, and has no more germicidal action than the alcohol. If we use a dilute alcohol, we find that although the dissociation of the salt is much less than in water, the germicidal action is greater. Furthermore we find that though HCl when added to a watery solution lowers the germicidal action, when added to a dilute alcoholic solution it increases the germicidal action. Probably the best germicidal solution of corrosive sublimate is composed of mercuric chloride 1, hydrochloric or nitric acid 5 and 60% alcohol 1000. In this solution the germicidal intensity is out of all proportion to the concentration of

the dissociated mercuric ion. The probable explanation of this fact is that alcohol is a fat solvent, a solvent for all lipoidal substances, and following its action on the cell membrane, the diffusion of the mercuric ions is facilitated. In addition the alcohol is itself a germicide, and a dehydrating aud coagulating agent. The same relations hold for silver nitrate, and to a less extent for the other metallic salts that are soluble in alcohol.

In the case of dilute acids, mineral or vegetable, and of alkalies, the germicidal action is quite closely proportional to the dissociation. Acetic acid is less toxic thau demanded by the dissociation. oxalic acid more toxic. These differences are probably due to the anion concerned. Oxalic acid is in general a very toxic substance. The addition to a dilute acid of a salt of the same acid will reduce the dissociation. Thus if we add sodium chloride to a solution of hydrochloric acid, it will lower the dissociation of the acid, but contrary to expectations the germicidal action will be increased. The same fact holds for the inversion of sugar by acids; it is favored by the presence of a salt of the acid. This is probably in both instances an example of catalysis.

Organic Germicides. There is here no factor of dissociation. Pure carbolic acid has no greater germicidal power than a five per cent solution. The same is true of liquor cresolis compositus, trikresol and formaldehyde. The explanation is that in the absence of water the diffusion into the bacterial cell is slow. The caustic action of tbe pure substances is however marked, in accidental wounds therefore it is far better even though the purely germicidal intensity is no greater. The germicidal activity of most of these bodies is greatly increased by the addition of electrolytic salts. Thus a five per cent solution of carbolic acid in five per cent sodium chloride is double in germicidal power that of the simple solution. The salt lowers the solubility of the carbolic acid, and thus it increased its relative solubility in the intracellular substance. The intracellular substance has salts. if the solution has none, carbolic acid will be most soluble in the solvent; if the solution be heavy in salt, carbolic acid will be more soluble in the protoplasm, and will pass in. The addition of a little hydrochloric acid increases still more markedly the germicidal action of a solution of carbolic acid, far more than can be explained by the reduction in solubility. Apparently the hydrochloric acid in some direct way accelerates the entrance of the carbolic acid into the cell. The presence of alcohol nullifies the germicidal action of carbolic acid almost entirely.

Though not investigated in detail, it is clear that the coefficient of distribution is destined to play a very prominent role in biological processes. Thus the predilection of anesthetics, narcotics and of tetanus toxine for the central nervous system is simply the result of their greater solubility (or solvent action) in lipoidal substances than in aqueous solutions. Once in the central nervous system they may or may not enter into chemical combinations with the constituents, but their primary localization there, rather than in the general body fluids is an expression of the coefficient of distribution.

The velocities of these several organic germicides are different. This is only intensified in the case of those substances that have a certain power of solution for lipoidal substances; these would obviously be able to enter the bacterial cell with greater rapidity. All substances that increase the permeability of the cell wall must be expected to augment the germicidal action of any antiseptic.

Whenever a germicidal solution is applied to bacterial or animal cells, we have the phenomenon of adsorption. The film of the solution about the cell contains a higher concentration of the germicide than does the solution. The increased concentration in this film at the boundary of contact of the cell wall and the solution will depend in part upon the solution—its concentration, solubility, viscosity—it will depend in part upon the nature of the cell wall. The concentration will be greater, for example, in the case of bacteria than in the case of a powder like talc. The lipoidal characteristics of the cell wall must also be of influence.

The action of germicides is influenced by temperature. Entirely apart from the action of high temperature on protoplasm, a germicidal solution will act more rapidly and effectively at a higher than at a lower temperature. A solution of corrosive sublimate acts much more rapidly at 50° than at 20°. This influence of temperature has two causes. The velocity of diffusion is accelerated by iucrease in temperature, and thus the entrance of the germicide, ion or molecule, into the body of the germ will be hastened. The coefficient of distribution will be altered, and this alteration will in general be positive in the direction of an increased relative solubility of the germicide in the protoplasm of the bacterium. If a frog be kept at room temperature and given a mimimum lethal dose of chloral, the symptoms may be entirely removed by placing the frog into a low temperature; at the high temperature enough of the chloral hydrate will be dissolved in the lipoidal substances of the central nervous system to produce symptoms of intoxication, at the low temperature enough of the drug will not be dissolved and no symptoms are produced, though the drug is present in the circulation.

The germicidal action of any solution will be modified by the presence of foreigu bodies. We have already seeu how the presence of salts may modify the action of germicides by modifying the degree of dissociation, the velocity of diffusion and the coefficient of distribution. Most of the germicides have a tendeucy to enter into complex combinations with the proteins. If these be present in the same system with the bacteria, the germicide has an opportunity to display a relative affinity for the protein or the bacterial protoplasm. This must lead to irregular results with different germicides. Furthermore these colloids will hold some of the germicide by physical adsorption. Thirdly, lipoids disturb germicidal action by modifying the rate of diffusion and also the coefficient of distribution. They tend further to form a film about the bacterial body, protecting it. The action of alcoholic solutions of germicides is due in part to the power of the alcohol of dissolving these fatty bodies. In the use of germicides in tissues, these factors are of great importance. They explain many discrepancies between test tube results and wound results. A germicide of intriusically low power may give good results in a wound, far better than a more powerful germicide, simply because its action is less hindered and disturbed by protein and fatty substances.

The future development in germicides must be along the line of functional poisons, comparable to hydrocyanic acid and chloroform, substances that kill primarily by the inhibition of an indispensable function. Such a germicide we might hope to be elective, not inimical to any of the fuuctions of the host. The discovery must come through studies along metabolic lines. We are as yet almost entirely ignorant of bacterial metabolism. There is no reason why we should not have chemical anti-metabolants for bacteria as well as specific anti-toxines.

Insurance and the Nostrum Habit. Slowly but surely the best magazines are falling into line in their refusal to accept "patent medicine" advertisements of any kind. Not long ago one of the insurance companies made an excellent move by requiring its medical examiner to ask of each subject for insurance, "What patent medicines have you used during the last five years?" and gradually other insurance companies are realizing the fact that the use of patent medicines is even more injurious than the use of alcoholic liquors. But much still remains: more should be done. Public interest must be more widely aroused.—*Ladies' Home Journal.*

THE METHODS EMPLOYED IN THE ERADICATING OF AN INFECTIOUS DISEASE IN THE CHINESE QUARTER OF SAN FRANCISCO. *

By WM. C. HASSLER, M. D., San Francisco.

HISTORY: On March 6, 1900, the medical and commercial world of California were startled by the announcement that bubonic plague, that most dreaded of oriental diseases, had gained a foothold on our shore, and having a vague idea of its dangers and a still more hazy conception of the extent of the invasion, its progress and the ultimate results thereof, well justified the alarm felt by the Board of Health of San Francisco for the public safety and in the measures then adopted. Plague was known principally as that dread disease that during the seventeenth century depopulated the cities on the Mediterranean and carried off 10,000 in a single day in Constantinople, and was rampant in England and in the north of Europe, being also a scourge in China and northern India at this time. Plague did not make its appearance again to any extent until the occurrence of the epidemic in Hongkong in the year 1894. Literature on this subject, in consequence, was meagre in detail, as well as conflicting and misleading. Experts from various parts of the world had been studying the character of the disease in the Orient, but their conclusions were of little value. To Kitasato and Yersin is due the praise and glory for the discovery and isolation of the bi-polar bacillus of Pestis Major, and to Yersion and Haffkine for the preparation of a serum that was to be the curative and prophylactic agency respectively. So great was this feeling of alarm and the exigencies of the case so important in the minds of the Board of Health that for public safety and for the purpose of confining the danger to the district in which it had occurred, namely, Chinatown, it was deemed advisable to quarantine this section, which was accordingly done by the stretching of ropes across the various intersecting streets leading thereto and placing a cordon of police to guard the same. Thus was isolated twelve blocks of the most densely populated and filthiest section of San Francisco.

The original source of infection in San Francisco can at best be only a matter of conjecture or speculation as to the direct carrier responsible for its conveyance to this country and appearance in this city. Owing to the ignorance of the etiology of the disease important data which would aid in establishing this point were at the time overlooked. It had long been styled a "filth disease" and credited with appearing only among those living in and surrounded by the most unhygienic and unsanitary conditions. The rat was considered a carrier of the disease. In recent years this has been more definitely determined by research, experiment and observation to be a fact. Foodstuffs, clothing, merchandise, straw and other substances used as packing, as well as the baggage of Chinese and others arriving from the Orient, were all held in part responsible for its appearance here. The consensus of opinion of those having a most intimate knowledge of the course of the disease in San Francisco is that the rat was the most important factor; that it became infected in some oriental port and was carried by ship to this city, finding its way ashore, transmitting the infection to its fellow rodents, and owing, first, to the proximity of Chinatown to the City Front wharves, and second, to the direct and straight run of the street sewers from this section to the Bay shore, access to same being exceptionally easy, as well as being the true and natural highway of the rat, and, third, to the great amount of refuse, both animal and vegetable, for years collecting in the Chinese quarter, these conditions creating a rich feeding ground and also an ideal place for the further propagation of rats. How conclusive this is can only be appreciated by those who have worked in this quarter and noted the conditions existing in all of the various phases. The role the rat assumes as the carrier and causative factor would seem evident when we view the circumstances that surrounded the first case, a Chinaman living beneath the sidewalk in a mere burrow as it were, at the intersection of Jackson and Dupont streets, which was an extension of the cellar beneath the building known as the Globe Hotel. This space was lined with ordinary rough boards on three sides, the one end being partly closed by the cesspool at the junction of the two streets. In order to have more room, the ground beneath the street surface had been dug out, and a sleeping place arranged by the placing of a few boards over a portion of the side sewer from this cesspool to the main sewer in the street. In this lodging was an accumulation of all kinds of refuse, filth and debris, collected by the occupant, who had lived in this cellar for a number of years. There was a total lack of drainage connections throughout the whole of the building or hotel. This was discovered when the main cellar floor was torn out, and a pool thirty feet wide, sixty feet long and some two feet deep, the result of escaping sewerage caused by a break in the house sewer, was laid bare. This house sewer discharged into this pool instead of being connected to the street sewer, and that portion beyond the break extended through the area walls of the building to the main sewer in the street, being perfectly dry, formed a convenient opening for the entrance of rats. Later on and within half a block of this particular spot, while wrecking a building, eighty-two rats, dead and alive, were gathered, all of which were found to be infected with pest. All these circumstances point to more than a probable source of the mode of infection.

The Quarantine. The death of this patient was reported on March 6, 1900, whereon a meeting of the Board of Health was called, and after deliberation it was decided to quarantine Chinatown, which was done, as already referred to. No person was allowed to enter the quarantined section without a written permit from the health officer, nor were street cars whose lines passed through the district allowed to stop for the purpose of taking on or letting off passengers while en route. A fumigating station was improvised in Portsmouth Square, this being adjacent to the eastern border of Chinatown. All mail and other articles that were deemed necessary to pass out of the district were here disinfected. This quarantine was maintained until 4 p. m. of March 9th, when, no further cases having appeared, and all precautions, such as disinfection of the infected premises, burning of refuse, and filth removed therefrom, it was deemed advisable to raise the quarantine and maintain a daily inspection of the district by a corps of sanitary inspectors and Emergency Hospital physicians. Subsequently cases began to appear in other parts of Chinatown and all efforts to control the spread of the disease appearing futile, the State Board of Health on May 28th officially requested the San Francisco Board of Health to again quarantine this section, which was accordingly done and maintained until June 15, 1900.

Inspection. Owing to the natural antipathy of the Chinese race to any intrusion, as well as their ignorance and the inborn method of transacting personal and public matters by intimidation, bribery and suppression, the "White Devils" were accused of sinister if not ulterior motives. This all tended greatly to impede the work of inspection, and not until the cooperation of educated and influential Chinese, and members composing the Six Companies, was secured, could anything like inspection be properly made. Perhaps the individual inspectors detailed to this work were in part to blame for, as already stated, bubonic plague was an unknown quantity and highly respected for its supposed virulence, and no one was paid to take a chance, such was the general sentiment discreetly voiced. In this connection it

*Read before the California Public Health Association, Riverside, April, 1905.

may perhaps seem to border on the ridiculous when I state that various of these medical gentlemen, all of whom had graduated within the past ten years, protected themselves by wearing little bags containing camphor and asafetida, even after submitting to the prophylactic serum of Haffkine. Such conditions could not and did not long obtain; more light was being shed daily upon the situation. System and order arose to combat the danger. Instead of stalking from house to house with a burly policeman, who pounded upon the door, demanding admission, which, when delayed or refused, resulted in enforced entry by means of ax or sledge, thus admitting the doctor, who entered and peered into the faces of the startled inmates, searched by aid of electric candle or common lantern the dark spaces beneath bunks; making fruitless inquiry for any person who might be sick and walking out after leaving an order, which was seldom understood, to clean the room and whitewash, etc., by the aforementioned co-operation notices were sent in Chinese to every resident in the district to admit and assist the officers and inspectors in the examination of premises and to obey fully all commands given in regard to cleaning of same.

A mass of people numbering more than 10,000, confined within the narrow limits of twelve blocks, many of whom had extensive business interests, not only in Chinatown, but outside the same, as well as the horde on the verge of beggardom, gave forth a powerful cry for liberty and confronted the Board of Health with a demand for food for the indigents. This resulted in arrangements being made with Dr. Kinyoun, the Federal quarantine officer, to remove to Angel Island such as were found needy, and care for them there. During all of the period of the quarantine it was the desire of the Board of Health to immunize, with the Haffkine serum, all residents of the district. Voluntary submission was asked and to thoroughly explain the reasons and facilitate the work a number of interpreters were secured through the Six Companies, who, after witnessing the operation upon the inspectors, agreed to take the injection, perhaps stimulated with the added incentive of obtaining a job at $2 per day. Equipped with a policeman, interpreter, hypodermic syringe and a one-ounce bottle of Haffkine serum we again made the rounds. The interpreter explained and the prospective subject declaimed, and from the limited number inoculated I cannot but feel that the interpreter spent more time execrating the dose than extolling its virtue. Who knows? I for one did not understand the language, but I do know that the inoculation of the serum left for more than a week a very painful arm. A problem arose in the matter of allowing others than those engaged in sanitary work to enter or leave the district, such as gas and water inspectors, and meter men, postoffice employes, census marshals, and even residents whose business interests were out of the district, this was overcome by inoculating each with the serum, and enforcing individual disinfection at the headquarters opened for this purpose. On May 26, 1900, a restraining order was issued by the Federal Court against this demand of the Board of Health to immunize the Chinese in the district and also Chinese and Japanese coming into and going from this port, and thus the work in this direction ceased.

On or about the above date real inspection began to take form, a corps of plumbing inspectors were detailed to act with the sanitary corps, who were ordered to make a careful house to house inspection. Dirt, debris and garbage were ordered removed from the premises, careful note was made of defects in the plumbing and notice for the renovation of the premises was sent to the owner, who was forced to begin work at once.

A laboratory was opened by the Marine Hospital Service. A bacteriologist, medical and other inspectors detailed thereto, and the order of the local Board of Health made at the inception of the trouble, that the bodies of all Chinese and Japanese must be autopsied before burial, was here carefully carried out. These medical inspectors, acting in conjunction with like inspectors detailed by the State Board of Health, and working in harmony with the city board, began a systematic census taking, which eventually became so complete and perfect that the inspector on his daily round noted changes of residence, visitors from other parts of the State, or absence of member of the family. On return to headquarters inspectors compared and verified their notes.

Chinese laundries in various parts of the city, and vegetable gardens conducted by Chinese were kept under strict surveillance, owing to the fact that relatives attempted to secrete from the authorities their sick and dead. Steamships and sailing craft from outside ports, as well as local river craft, also passenger trains, were daily inspected for like reasons and for the added safeguard of preventing new cases getting into the State or city. Inspection was daily made of the residential portion of the city contiguous to Chinatown. Such was the inspection daily maintained during the period extending from March 6, 1900, to March 1, 1905. Crude in the beginning by reason of the lack of knowledge of the disease and proper manner of combating, the experience gained by observation of the necessities, all tended to bring about the evolution of that perfect system that marked the closing period of work by the joint boards. During the last year this inspection began to be looked upon with great favor by the Chinese, who had gradually been taught that filth, refuse, darkness and lack of ventilation were their real enemies, and if eliminated greater comfort and better health would be enjoyed. The universal courtesy of the inspectors, the solicitude and zeal displayed while making their rounds, and the positive refusal to be bribed or even tempted when approached, finally won the respect of the Chinamen, and from the aversion and menacing attitude first assumed they cheerfully opened the door each morning and ordered a seat for the doctor. Advice was sought, complaints were made and information volunteered, and a feeling of confidence maintained.

Quarantine and Fumigation. When a case was discovered a quarantine was placed upon the premises by stationing police officers at all points of entry and exit. This was maintained until the patient either recovered or died. Then the house would be treated in the following manner: The premises and all furniture therein were thoroughly fumigated with sulphur. Walls, ceilings and floors sprayed with 5% carbolic acid solution. The basement, cellar or area beneath the building, surrounding ground and woodwork were covered with chloride of lime. The premises remained thus for five days, when the infected rooms were opened and all clothing, furniture, interior decorations, paper from the walls and ceilings, if loose, were removed to the street and there incinerated. The premises were again sulphured and kept closed for another five days, during which time the owner was notified that before any further occupancy of the place could prevail all lath and plaster of the rooms and hallways must be removed, and the frames thus exposed must be whitewashed and then covered with new lath and plaster material. In no instance was exception made to this rule. If the owner failed to comply the premises remained vacated.

The dead were removed to the laboratory of the Marine Hospital and after an autopsy the body was sealed in a heavy zinc lined coffin; before sealing, the body was covered with unslacked lime. Burial took place immediately.

Sanitation of the District. This work was a separate feature and for convenience may be divided into three headings:

First. Removal of refuse, garbage and accumulated debris:

The disposal of the above in Chinatown had been

done in a manner most convenient to them, with no consideration for health or ultimate results that might accrue from its collection. "Out of sight out of mind" is a phrase that would apply aptly to the case. Pits were dug beneath wooden floors of cellars, covered with loose boards or a trap door, spaces between floors, especially in area ways, were the universal receptacles. Prior to the wrecking of additions to the original structures nearly all cooking was done in the wooden covered porches. The crevices and lightshaft between buildings were in many instances filled to the height of the top story. In this manner a large percentage of refuse was also disposed of, and only when the mass threatened to bury the tenants, or one faction was filling the space faster than his neighbor, was complaint made and the hiding place pointed out. From the above description you must not infer that the sanitary officers were negligent in allowing such a state of affairs to exist. Constant vigilance had been exercised and many arrests made among the offenders, but it was simply impossible to discover these conditions, owing to the construction of the buildings and the additions thereto. The occurrence of plague, however, led to rigid inspection for the purposes of controlling the situation and bettering the sanitation, which was made possible by the special corps detailed to the district. Owners and tenants were at once put to work to remove this debris, but the progress made was too slow, and the demand for prompt and energetic action so great that a force of laborers were employed to go from house to house in the entire district, tear up floors where necessary and carry the refuse to the street; from here it was removed to a vacant lot in the section and there incinerated. After thoroughly cleaning the district arrangements were made with the Six Companies, who now provide a number of scavenger wagons for the purpose of removing the garbage of the Chinese residents, thus bringing about a revolution of the former system.

Second. Flushing of streets and sewers and disinfection of premises, and killing of rats:

Almost from the inception of the disease men were detailed each day to flush and clean the main and tributary sewers located in this section. They also spread poisoned fish, prepared at the laboratory, in these sewers for the purpose of killing rats. During the height of the epidemic in 1901 a Kinyoun sulphur apparatus was employed to disinfect the sewers by forcing sulphur fumes into them. This was done by the stopping of all cesspool openings, tributary sewers and manhole covers in the block by tightly sealing them with clay and the sewer then filled with sulphur fumes under pressure. This had the twofold effect of acting as a disinfecting agent and killing many rats. After some months this was discontinued, other and better measures taking its place.

To destroy the rat has been our constant aim. At the present day, after fourteen months of immunity, every rodent caught alive or found dead is carefully autopsied, smears and cultures are made. We no longer poison this pest, for under the most careful handling phosphorus, arsenic and strychnine are dangerous agents. We now use Danysz virus, pure cultures of which are obtained, a pepton bouillon is inoculated and thickened with cornmeal, thus forming a tempting morsel for rats and mice, as well as a perfectly harmless mixture for man or the higher animals. The epizootic-like disease that results in rats and mice after eating of this mixture is very fatal. The advantage in the use of this is that it is perfectly clean, aside from being harmless. It can be placed on closet shelves and in other places in kitchens, where food is sought by the rodent. Under this subdivision I have included the disinfection of premises, which for two years past has been done as follows: The spreading of chloride of lime over all exposed surfaces in cellars, alleyways, areaways, toilets and on the floor of such houses where cases had occurred. This was alternated by spraying with a 5% solution of carbolic acid and a 1-500 solution of bichloride of mercury were interchanged. Latterly the bichloride was exclusively used, owing to the frequent complaint and objection to carbolic acid. These sprays were used principally to kill fleas and other vermin that find a natural breeding place in the cracks and crevices of floors and walls, and also for the purpose of cleanliness and disinfection. The streets of this district were swept three times a week and were sprinkled each day. All asphalt streets were hosed off each morning before flushing the sewers. During 1903, when the greatest number of cases occurred, the streets were sprinkled with a 1-500 bichloride each day.

Third. Delicate as is the plague organism it appeared to resist all measures, showing conclusively that the nidus had not been reached. To burn the district was impracticable and not warranted; experience had taught us that in those places having the most light and air we seldom found infection or rats. From this arose the idea of restoring the buildings to their original area walls by the tearing out of all wooden additions, balconies and other structures that excluded light and ventilation. Nothing was allowed to be reconstructed except a small balcony not over five feet square, and this only where it was found necessary to carry a toilet or urinal. The value of this course soon became manifest and led to the tearing out of all wooden floors in cellars and compelling the owner of the property to replace the same with artificial stone and cement. The problem seemed solved, as cases diminished from the outset of this procedure and as the work continued they ceased entirely.

Chinatown now has a solid stone floor over its entire area of twelve blocks. The areaways, lightwells and spaces between buildings are likewise free of all obstructions, in fact, the section has undergone such a change that it may be compared favorably with any district in the city and the only persons still complaining are the pests known as Chinatown guides, whose vocation is gone, there being no more underground dens with reeking filth and grimy denizens to squeeze a gullible tourist a $1 a head to view. Owing to the length of this paper I am unable to cover the conditions met while in charge of the work of wrecking the areaways and cellars, but I assure you that mere words, no matter how expressive, would fail to paint the picture. This was not accomplished without the expenditure of much labor and money on the part of the State, city and property owners. In the early part of the work the Citizens' Relief Committee raised $30,000 to assist the city authorities in the sanitary measures then outlined. I have estimated that more than $500,000 was spent by property owners in rehabilitating their premises. The city authorities expended, approximately, $45,000, aside from the amount spent by the State authorities.

Results. They were the eradication of the most virulent of diseases and a knowledge gained of the proper methods to apply. San Francisco has accomplished what no other city similarly infected ever did. Perhaps the class of structures the authorities had to deal with were responsible for the methods employed, as the chief object was not to wreck the buildings, but to exterminate the disease.

The Federal, State and city authorities who have had charge of this work can feel a just pride in the solution of a sanitary problem, accomplished by the removing of various impediments and surmounting of serious obstacles.

The vomiting of appendicitis is not a constant factor. It is of useful diagnostic value when present. The presence of general peritonitis is pretty surely indicated by a green vomitus, while in a less severe form of the disease the vomitus is of the ordinary contents of the stomach.—*Harvey, in Journal of the Medical Society of New Jersey.*

MEDICAL TREATMENT OF DISEASES OF THE GALL-BLADDER AND DUCTS.*

By A. H. MAYS, M. D., Sausalito.

ALTHOUGH the medical treatment of diseases of the bile passages has become somewhat restricted during the last few years, having given way to surgical treatment, the majority of cases can be greatly benefited by medical means, and many will completely recover. And if acute cases of gall-bladder and duct diseases were recognized early and proper medical treatment instituted, there would be less need of surgical intervention later on. Generally, little treatment is necessary to get rid of simple catarrhal jaundice. Since the affection originates in the duodenum and is kept up by the condition there, it is well to give some mild purgative, such as calomel and a saline. The food should be unirritating, readily digested and not subject to early fermentative changes. It should consist of lean meat, soup, and green vegetables. Rich, highly seasoned foods sweets and fats are to be avoided. Sodium phosphate should be given in sufficient quantity to keep the bowel movements quite watery, until the secretion of bile is re-established. Other drugs which increase the flow of the bile and render it less thick are sodium bicarbonate, ammonium chloride, taraxacum. Large colon irrigations of water at temperature of 80 to 90 degrees Fahrenheit are good and act by inducing active contraction of the gall-bladder, which expels the mucus blocking the common duct. Chronic catarrh, following the acute condition, should he treated along the same lines as the acute affection, by light diet and regular exercise and the free use of salines, the best being Carlsbad salts. Light massage may he employed if there is no history of gall-stones. In the event of pain being present, topical remedies in the shape of hot fomentations or the ingestion of a tumblerful of hot water, will probably be sufficient, but it may become necessary to occasionally employ a sedative, such as spiritus aetheris in aqua chloroform, repeated every half hour, or morphine may be necessary.

The pain in these cases is caused by the passage of a thick, ropy mucus along the inflamed ducts. Occasionally the mucus becomes much inspissated and gives rise, when passing, to pain resembling in almost all particulars that due to the passage of a gall-stone. Should the symptoms persist after treatment has been persevered in, and especially if jaundice be present, a surgeon should be consulted to determine what relief can be obtained by mechanical means.

The treatment of an attack of hiliary colic should always commence with a hypodermic injection of morphine, which acts not only by relieving the pain, but also hy relaxing the duct and thus decreasing the resistance to the passage of the stone. The doses should be repeated until relief is obtained. Chloroform by inhalation greatly aids the action of the morphine. Hot baths and hot applications over the region of the gall-bladder also assist the relaxation.

There is no substance which will dissolve gall-stones when taken hy the mouth, but various drugs assist the passage of stones from the ducts. These may be divided into two classes. First, those which exert a sedative effect on the ducts, lessening muscular rigidity. They are the various cholagogues, the salicylates, acid nitro-hydrochloric, taraxacum, dioscorea villosa. Second, those drugs which exert an effect on the stone itself, and of these the most important is olive oil. This should be given in large doses, or in small doses frequently repeated. It acts by softening the calculus so that it can become moulded to the duct and pass easily. The explanation of its action is uncertain. It has been suggested that the good effect may be explicable on the supposition that an increased absorption of fat in the form of fatty acids leads to a greater proportion of those in the bile, and that they are the active ingredients in softening the calculus.

Chloroform, ether, turpentine and several other substances readily dissolve cholesterin, but they are not, when taken by the mouth, excreted in sufficient quantity to have any effect in dissolving calculi in the gall-bladder or ducts.

The fluid extract of dioscorea villosa has proved a very useful remedy, and acts by exerting a local sedative effect, lessening muscular rigidity. After gall-stones have passed into the bowel it is of service in reducing the congestion and inflammation which they have caused. But the object in the treatment of simple cholecystitis after the attack should be not with the object of causing the expulsion of calculi, as of reducing the inflammatory process going on in the gall-bladder. As the cholecystitis accompanying gall-stones is caused by bacterial infection from the intestine, every possible means should be instituted to disinfect the bile passages and to diminish the viscidity of the bile. The usual disinfectants of the bile are not of use, since they are not excreted by the bile in appreciable amount to have any effect on the bacteria contained in that fluid. Thymol and menthol would be excellent disinfectants for the bile since they are freely excreted by the liver, but they cannot be absorbed from the intestine in sufficient amount to be very active in the bile on account of their tonic properties. Sodium salicylate is the most practical and efficient, as it is freely excreted in the bile, and it has a powerful action in the hile in as low a solution as .1 per cent.

The diet and general hygiene are exceedingly important in the treatment of these cases. The diet should be regulated with the object of lessening the amount of cholesterin and of diluting the bile. All richly-cooked food should be avoided, sugars and fats and a large proportion of fresh vegetables and farinaceous foods substituted. Meat should be taken but once a day. Regular exercise should be employed, walking, cycling, horseback riding, etc., but too energetic exercise is contra-indicated when there is persistent pain over the gall-bladder, or a history of frequent attacks of colic. Massage should never be employed in the presence of gall-stones. Any gastric deficiency should receive appropriate treatment. In women tight lacing should be prevented, and the habit of sitting long in cramped positions which interfere with free hepatic circulation. Carlsbad salts should be freely used in these conditions, being given for its laxative effect and also for the purpose of diluting the bile. It is a mixture of sodium sulphate, potassium sulphate, sodium chloride and sodium bicarbonate. It is obtained in both the crystalline and the powdered form, the crystalline form being somewhat the more laxative, as it contains a much larger percentage of sodium sulphate than the powder. Carlsbad salts is to be given in a tumblerful of warm water on rising and no food should be taken for at least an hour afterward, to allow time for it to pass into the bowel. The chief question in the treatment of all these diseases is, when it is necessary to call in surgical aid. The great trouble has been that surgical measures have been so often postponed until the time is very unfavorable.

If, for example, we have a patient who has had several attacks of biliary colic, the time will come when symptoms will persist during the intervals. There will be slight pains over the hepatic region, a furred tongue, slight rise of temperature every day, 99 to 100 degrees. Such a history shows an infection of the gall-bladder and ducts, and if, after giving the medical treatment a fair trial, improvement does not follow, the patient is almost sure to have serious trouble unless the gall-bladder and ducts are drained by surgical means. If there be a family history of cancer, the necessity of operation is imperative, since the presence of gall-stones favors the development of cancer. It must be remembered, however, that the treatment does not end with the surgical operation, but that medical treatment is needed afterward to prevent the defective metabolism which gave rise originally to the cholelithiasis. The patient should, if

*Read at the 35th Annual Meeting of the State Society, Riverside, April, 1905.

possible, change his occupation from a sedentary to an active one. Regular exercise should be taken, horseback riding, cycling and golf being the best. He should follow the diet above outlined; drink quantities of water for the purpose of diluting the bile.

STITCH HOLE ABSCESS.

By J. HENRY BARBAT, M. D., San Francisco.

IT MIGHT seem superfluous to the average operator to bring up the matter of wound infection following clean operations with our present knowledge of surgical technic, but in reviewing the work of a number of our surgeons I have been surprised to find a large number of so-called "stitch-hole abscesses" following "clean" operations. It is customary in the majority of cases to lay the blame on the suture materials or the operating-room nurse, or anything which will tend to shield the operator himself from odium of this almost unnecessary accident.

The records of men of large operative experience show not more than 1% or 2% of superficial infections following clean operations, and in the majority of cases these can be traced to some inherent condition of the patient, usually reduced resistance due to the disease or loss of blood. Why then do so many men have stitch-hole abscesses in a large proportion of their operative cases? The answer is easy.

Let us first glance over the various possible means of infection outside of the operator and his assistants. The field of operation. The operating room. Dressings and sponges. Instruments. Ligatures and sutures.

It is a well recognized fact that it is practically impossible to obtain a field of operation which is free from germs, and even with the most rigid antiseptic technic the *staphylococcus epidermidis albus* is found in the deep layers of the skin, usually at the bottom of the hair follicles. Naturally the number of germs over any given area will vary to a great extent with the method adopted in cleaning the skin before operating, but it can be shown that the presence of a few normal inhabitants of the skin rarely gives rise to stitch-hole abscess unless assisted by some error in operative technic.

Numerous tests have been made to determine the presence and number of germs in the air of operating rooms, and it has been shown that bacteria are found in the air of all operating rooms within a short time after the doors and windows have been opened, following disinfection; and the number depends largely on the number and cleanliness of the persons entering the room. The air nearest the floor contains the largest number of germs on account of the dust carried in on the shoes and kept in circulation by the motion of the feet. Near the ceiling the air is comparatively free from germs. Operating rooms which are situated near the ground floor contain many more bacteria than those which are considerably elevated. The furniture of any modern well-kept operating room will be found free from germs previous to any operation, and there should be no likelihood of infection from that source.

All dressings and sponges are necessarily sterile after having been submitted for 30 minutes to a moist heat of 250° Fahrenheit.

The instruments are boiled and therefore sterile.

Suture and ligature materials have always come in for the largest share of blame for infections because the operator has often been able to remove a suture or ligature several days after the operation, which could be shown to contain some form of pus producing bacterium, and was forthwith declared to be the cause of the disaster. As a matter of fact I have never seen a piece of prepared suture or ligature material which was removed from its original package under proper precautions, that would give one colony on glycerine agar or blood serum; aërobes or anerobes. These tests have been made hundreds of times in the various hospitals with which I have been connected during the past 12 years. We must therefore look to something besides the operating room and its appurtenances as a cause of stitch-hole abscess.

Operating room nurses, properly trained, properly gowned, wearing correct head-gear and rubber gloves, cannot be considered as sources of infection as they do not come in contact with the wound unless acting as assistants, and they should then wear face masks. The greatest danger from the nurse is in the conveyance of instruments, ligatures and sponges to the operator or assistants. I have seen ligatures and sutures trailed over the shoulder of the operator who had a few minutes previously wiped his nose or chin on his gown at the identical spot touched by the ligature.

We now come to the operator himself and his assistants. From actual observation less than half the men who operate have acquired the habit of aseptic technic. Let the slightest thing go amiss during the course of the operation and asepsis is forgotten, materials are handled which are not sterile and the soiled hands plunged into the wound without a thought of the consequences. These gentlemen invariably blame everybody but themselves if infection supervenes. I have seen operators with large reputations wash their hands carefully, and while waiting for the patient, adjust their glasses, wipe their noses on the operating gown, and actually in one case place the finger in the ear.

The modern surgeon will tell me that these men are not to be classed as surgeons and should not operate, but unfortunately they do, and their results are just what we would expect; yet they have reputations as surgeons among the laity. How unjust it is for the operator to blame a ligature for producing a stitch-hole abscess when he has allowed the perspiration from his forehead or nose to drop into the wound, or has blown particles of germ laden saliva on the field of operation, or has dropped a few hairs from his head or face into the adominal cavity.

I have seen these things happen without the slightest attention being paid to them. I have repeatedly seen a pair of scissors with which an infected appendix has been cut, dropped among the other instruments and subsequently used to cut ligatures with. Must we not expect infection of our wounds if a gangrenous appendix is dragged through without proper protection? These errors of technic and many others I regret to say are being constantly committed by men who cut for disease and incidentally for money, and whose results are anything but elegant. In hospitals where men of this type habitually operate, all the attendants become careless and it is unusual to have wounds heal by first intention.

The assistant, unless he has been thoroughly trained and constantly employed, becomes careless and forgetful of his asepsis and jeopardizes the results of the most careful surgeon. Naturally, anyone who has the misfortune to assist regularly any chief who is not thoroughly clean in his work, will acquire the same bad habits as the one whom he assists, and is a dangerous person to have around during an operation. Assistants frequently become careless of their asepsis, when during the course of an operation their active service is not required for a few minutes, as during the separation of adhesions by the operator or when waiting to apply a ligature; and I have frequently seen a catgut ligature repeatedly drawn between the partially cleaned fingers of the assistant previous to its application.

How often do we see assistants using a sponge which has already been touched to an infected area, thereby spreading, instead of removing the infectious materials. What is the remedy for this state of affairs? First, of course, students must be properly taught, and in these days when surgery is done by the majority of practitioners, especial stress should be laid on the tremendous responsibilities which are

assumed by every individual who takes up the scalpel as a means of livelihood.

I regret to say that some of the gentlemen whose asepsis in the operating room has been open to serious criticism, have been recent graduates whose teaching, I am positive, has been forgotten or never understood. Recent graduates of recognized medical colleges should have, theoretically, an almost perfect aseptic technic. Any individual who has had the advantages of a course in a modern bacteriological laboratory cannot but appreciate the serious results which are liable to follow the slightest error in asepsis. Why is it, then, that these recent graduates forget their teaching? Simply from lack of having acquired the "aseptic habit." Unless a person be in constant touch with operating room work, he is liable to become careless and endanger the lives of patients who have the misfortune to be operated upon with his assistance.

No individual should attempt to operate who does not keep in constant training, either as an operator or an assistant, because his results will be bad, and he will bring legitimate surgery into disrepute.

Stitch-hole abscesses are usually caused by the poor technic of the operator or his assistants.

EXTRA-UTERINE PREGNANCY. *

By R. A. WHIFFEN, M. D., San Jose.

MY INCENTIVE to bring the subject of extra-uterine pregnancy before the society for discussion was originally a difference of opinion between Dr. Howard Gates and myself in regard to a patient on whom we operated at the County Infirmary.

Since I have had the pleasure of assisting Dr. Gates at an operation upon a case of tubal pregnancy at the San Jose Sanitarium, a description of which I will give you.

Extra-uterine pregnancy dates back in surgical history to the eleventh century in all probability, and from that time down to the present cases have been reported at intervals of from two hundred years to a few days.

What interests us more than history is the present knowledge of this development of the fertilized ovum outside of the uterine cavity, and of this knowledge I shall make as brief a statement as possible.

Many theories are advanced as to the cause of this condition, the most feasible ones being: polypi in the Fallopian tube; atresia of one tube with external migration of the fertilized ovum or the spermatozoa from the opposite side; persistence of a foetal type of uterine tube; diverticula from the lumen of the tube; torsion of the tube; catarrhal and purulent salpingitis; myoma of the uterus or in the tubal walls; peritoneal bands and adhesions compressing the tube; cervico-abdominal fistula after hysterectomy; any one of which may be a cause in some particular case.

With these various causes it can readily be understood that the ovum may develop in a number of locations as the following classification will show: First, ovarian pregnancy, divided into internal when the ovum remains in the Graffian follicle and external when the ovum develops partly in the follicle and partly in the peritoneal cavity. Edgar states that this occurs in 4.8 per cent of all cases, while other authors—Williams, for instance—consider that it occurs less frequently. Second, abdominal or peritoneal pregnancy, divided into primary, in which the ovum falls into Douglas cul-de-sac and stays fixed there from the beginning; secondary, when the ovum begins its growth in the tube or ovary and by aborting from the tube or rupture of the tube or ovarian sac, the placenta still being retained in position wholly or partially, finally falls into the peritoneal cavity, where it continues its growth. Edgar states that this form occurs in 8.5 per cent of all cases. Other authors dispute the existence of a primary abdominal pregnancy, claiming that all abdominal cases can be proved to be secondary. Third, tubal pregnancy, divided into tubo-abdominal, in which the ovum increases partly in the tube and partly in the abdominal cavity; tubo-ovarian, in which the ovum is between the fimbriated end of the tube and the ovary; tubal pregnancy proper, in which the ovum is fixed about the middle of the tube; interstitial tubal pregnancy, in which the ovum is developed in that part of the tube which is connected with the uterine wall. This third class is by far the most common form, and Edgar states occurs in 86.7 per cent of all cases.

A little thought regarding the above classification, taking into consideration the anatomy of the parts involved, will be explanatory in itself.

We are most interested in the complications which arise, as they are really what do the damage to the patient.

The most important complications are a rupture of the tube from which the foetus may be expelled into the abdominal cavity, and if the placenta is still retained in its original site the foetus may continue to develop. The same thing may practically occur by the end of the tube being forced open and the foetus expelled, this latter being called tubal abortion. There might not be much hemorrhage in the above-mentioned condition, but the shock would be great. If, however, the placenta loosens partly or wholly (which is most apt to occur), there would be severe hemorrhage and in all probability collapse and possibly death of the woman in a very short time. If the woman does not die and an operation is performed at this time, the chances of recovery may be very good, but if nothing is done and the woman lives we will have an accumulation of clotted blood in the pelvis or between the layers of the broad ligament, forming a hematocele which may partly absorb, but there is always the possibility of infection in such a case, especially if the hematocele is in contact with the bowels, and then the dangers of pelvic abscess would be added.

Another condition that might develop is that the fetus and blood clots or the sac containing the foetus and placenta might be walled off in the abdominal cavity in contact with the bowels and by pressure on the bowels cause a necrosis at some point and rupture into the bowel, thereby creating another condition that is apt to prove fatal on account of hemorrhage into the bowel.

Very rarely the rupture of one of these pregnancies has been through the abdominal wall or into the bladder.

The one form of rupture of an extra-uterine pregnancy that does not cause trouble is the interstitial tubal pregnancy when it ruptures into the uterus.

The worst complication, in all probability, as far as the surgeon is concerned, is to be found when the growth has continued for several months before coming to operation and a great many adhesions have formed involving the bowels in the general mass, so that its removal is almost impossible on account of hemorrhage from large adherent surfaces.

In cases that have lived and never come to operation and in some that have gone to full term the records show that some of the foeti have become lithopoedians, remaining in the abdomen as long as fifty-five years; others have become encysted, and still others have formed abscesses which have been drained and the patients seemed to get along all right: still the dangers and suffering that attend such cases are uncalled for and should be avoided. It is only in the last twenty to twenty-five years that these cases have been treated surgically and in that time the mortality has been cut down enormously, so that at the present day treatment, such as electricity or the injection of poisonous fluids, to kill the foetus should absolutely be a thing of the past, and the surgeon called upon to operate as soon as a diagnosis is made. It is seldom that a diagnosis is made until the patient is in a bad state, as the woman herself does not realize her serious condition, and if she has

*Read before the Santa Clara County Medical Society, July 19, 1905.

had a physician he is not often looking for such trouble, as the symptoms before a rupture of the tube or sac occurs are not serious enough to make him suspect the nature of her trouble.

The symptoms on which to make an early diagnosis are at times rather indefinite. The woman may have all the symptoms of a normal pregnancy at first—vomiting, suppression of menses, change in breasts, increase in size of abdomen; added to this, dizziness or faintness. After the first six to eight weeks she is apt to have a bloody discharge or a decided hemorrhage from the uterus, due in some cases to the loosening of a decidual membrane which has formed in the uterus. This membrane may be thrown off in pieces and cause irregular hemorrhages or there may be a discharge stained with blood which the woman will consider irregular menstruation. As the growth increases in size there will be sharp pains in the side on which the growth occurs. If a bi-manual examination of the pelvis be made at this time an enlarged tube or ovary may be outlined or only a boggy mass at the side of the uterus or in the posterior cul-de-sac, the uterus itself being enlarged and the arteries in the pelvis pulsating strongly. If at this time pieces of decidual membrane can be demonstrated in the discharge from the uterus, an absolute diagnosis can be made.

If the patient goes on until rupture of the tube or sac and has symptoms of intra-abdominal hemorrhage, this, coupled with irregular flowing, severe pain in one side and perhaps the palpation of a mass of some kind in the pelvis, ought to lead to a diagnosis.

Cases have occurred, though very rarely, where there was a suppression of menses and no hemorrhage, but with the other symptoms present there should be no doubt of the diagnosis. The treatment of these cases should always be surgical, and if operated upon early an abdominal operation should be done and the entire mass removed; in fact, the abdominal operation will be the one of choice in most cases. There may be cases where a large mass bulges down into the vagina and an opening there, with removal of as much as possible of the mass would be advisable, packing the cavity to prevent hemorrhage and waiting for the mass to be gradually expelled through the opening or absorbed, but in this way it takes much longer for the patient to recover.

It may be necessary sometimes when doing an abdominal operation, if it is impossible to remove everything, especially the placenta, on account of hemorrhage, to pack through the abdominal opening and wait for the gradual separation of the placenta.

The first case I will report is that of Mrs. N., a French woman, 33 years of age, strong and healthy, except for a complete tear of the perineum and a prolapse of the uterus. She is the mother of eight children, one of these children dying at two years of age. At one birth a craniotomy was performed in order to deliver her. I waited upon her at her last confinement, on March 16, 1904, which was a normal birth. She has had one miscarriage, the first time she was pregnant. Since her last childbirth I examined her two times up to three months ago to determine what could be done with the prolapsed uterus. At these examinations I found nothing wrong with the ovaries or fallopian tubes. She nursed her last baby, but flowed irregularly during the nursing period. About three months ago she began to flow more often than she had before and from that time until within two weeks of the time she was operated upon flowed on an average of every two weeks, and the last two weeks she flowed most of the time. The flow at times being light colored and again she would have severe hemorrhages; she also complained of sharp pains in her left side and at times had regular contractions of the uterus, as she expressed it, like labor pains, flowing severely while the pains continued.

I examined her three times during the last two weeks, the first two times finding the uterus enlarged and made up my mind she was pregnant and was going to have a miscarriage, but the last time I examined her she was flowing severely and I could feel a boggy mass at the left and behind the enlarged uterus, the blood vessels in the pelvis pulsating strongly, and I decided it was a case of extra-uterine pregnancy. I then called in Dr. W. K. Davis to examine her, and he confirmed my diagnosis. She was taken to the Infirmary that night and Dr. Howard Gates and I operated upon her the next morning. We found an encysted mass behind and to the left of the uterus, somewhat adherent, but the adhesions were easily broken and the mass raised. We found it involved the ovary of the left side, the tube being perfectly normal. We removed the mass and upon opening it found the sac filled with clotted blood. The sac was perfectly smooth inside for about three-quarters of its surface, the other one-quarter having the clotted blood adherent to it. This sac was about 2½ inches in diameter. Dr. Gates curretted the uterus, but found nothing.

Dr. Gates is of the opinion that it was not an ovarian pregnancy, while I think it may possibly have been, as the growth corresponds in many ways with the requirements of Spiegelberg, who, to prove that condition, lays down these rules: First, the tumor must correspond to the situation of the ovary. Second, it must be connected to the uterus by the ovarian ligament. Third, the tube must be proved intact. Fourth, ovarian tissue must be found in the mass of the sac.

All except the fourth condition were proven, but unfortunately the specimen was thrown out and we were unable to prove the fourth. It seems to me, with all the symptoms of an extra-uterine pregnancy except the proof of ovarian tissue in the wall of the sac, that I am warranted in making my diagnosis of a probable extra-uterine ovarian pregnancy.

Through the kindness of Dr. Gates I am able to report a case about which there is no question.

This patient was first seen by Dr. Gates on June 29th. She was a well developed woman, strong and healthy in every way, 38 years of age and the mother of one child. She had a miscarriage two years ago, at which time she was curretted.

When first seen she was having a few cramps and flowing a little. She had missed one menstrual period. Bi-manual examination showed no enlargement of the uterus and no growth was determined at the side of the uterus. A little medicine relieved her of the cramps, and when Dr. Gates left town four days afterward she was feeling all right. While he was away the cramps and flowing returned and another physician was called in, who did not make a diagnosis. On July 13th Dr. Gates was called again and found the woman in a state of collapse, having severe cramps and almost exsanguinated from loss of blood; he made a vaginal examination and found a large boggy mass in the pelvis, making his diagnosis at once of ruptured extra uterine pregnancy, with intra-abdominal hemorrhage. The woman was moved at once to the San Jose Sanitarium and operated upon within an hour. On opening down upon the peritoneum the blood in the abdominal cavity showed dark through it and when the peritoneum was incised the blood spurted out all over the abdomen. The doctor removed a large amount of clots and free blood from the abdomen, then elevated the tube, which was quite large and showed that a tubal abortion had taken place. The abdomen was freed from blood as much as possible and washed out with normal saline solution; the tube was then removed, leaving the ovary which was not damaged, and the abdomen closed. A saline infusion was given the patient and such other stimulants as were deemed necessary; she rallied nicely and seemed to do well until the night of the 15th, when she suddenly grew worse and died on the 16th.

This specimen I have described is the tube with the fimbriated extremity filled with blood clots, and is the point from which all the hemorrhage took place.

The Mission and Function of the Local Medical Journal.

Where there are a number of rival medical journals in the same State, it is the duty of each physician to ascertain the best one, usually an easy task, and give that one his earnest support. In return for this support what does the medical journal owe to its subscribers? It owes them the prompt publication of all medical society reports and notices whenever such are furnished in proper season by the secretaries of these societies; and here let me say, in passing, that these societies should insist upon their secretaries sending reports of their meetings, regularly.—Burnside Foster, M. D., *St. Paul Medical Journal.*

ALCOHOL IN "PATENT MEDICINES."

The following percentages of alcohol in the "patent medicines" named are given by the Massachusetts State Board Analyst in the published document No. 34:

	Per cent. of alcohol (by volume)
Lydia Pinkham's Vegetable Compound	20.6
Paine's Celery Compound	21
Dr. Williams's Vegetable Jaundice Bitters	18.5
Whiskol, "a non-intoxicating stimulant"	28.2
Colden's Liquid Beef Tonic, "recommended for treatment of alcohol habit,"	26.5
Ayer's Sarsaparilla	26.2
Thayer's Compound Extract of Sarsaparilla	21.5
Hood's Sarsaparilla	18.8
Allen's Sarsaparilla	13.5
Dana's Sarsaparilla	13.5
Brown's Sarsaparilla	13.5
Peruna	28.5
Vinol, Wine of Cod-Liver Oil	18.8
Dr. Peters's Kuriko	14
Carter's Physical Extract	22
Hocker's Wigwam Tonic	20.7
Hoofland's German Tonic	29.3
Howe's Arabian Tonic, "not a rum drink"	13.2
Jackson's Golden Seal Tonic	19.6
Mensman's Peptonized Beef Tonic	16.5
Parker's Tonic, "purely vegetable"	41.6
Schnock's Seaweed Tonic "entirely harmless"	19.5
Baxter's Mandrake Bitters	16.5
Boker's Stomach Bitters	42.6
Burdock Blood Bitters	25.2
Greene's Nervura	17.2
Hartshorn's Bitters	22.2
Hoofland's German Bitters, "entirely vegetable"	25.6
Hop Bitters	12
Hostetter's Stomach Bitters	44.3
Kaufman's Sulphur Bitters, "contains no alcohol" (as a matter of fact it contains 20.5 per cent of alcohol, and no sulphur)	20.5
Puritana	22
Richardson's Concentrated Sherry Wine Bitters	47.5
Warner's Safe Tonic Bitters	35.7
Warren's Bilious Bitters	21.5
Faith Whitcomb's Nerve Bitters	20.3

In connection with this list, think of beer, which contains only from two to five per cent of alcohol, while some of these "bitters" contain ten times as much, making them stronger than whisky, far stronger than sherry or port, with claret and champagne way behind.

☞ *Duplicates of this slip may be obtained upon application to the Publication Office of the Medical Society of the State of California, Room 1, Y. M. C. A. Building, San Francisco.*

Congratulations to Missouri.

From the October number of the *Journal Missouri State Medical Association* we take the following extract, and beg to congratulate the Council upon its decision and wish it strength to carry it out. That its advertising pages have been adorned with some things that should not be there, is beyond doubt; that they will shortly disappear, now seems probable.

"At a recent meeting of the Executive Committee of the Judicial Council, the members were disposed to criticise harshly some advertisements of proprietary remedies carried by the *Journal*, and decided to discontinue all those where the formula was not known or where claims not founded on fact were made. The correctness of the decision of the committee is beyond question. While it may be considered within the province of a medical journal to bring to the attention of its readers, through its advertising columns such preparations as are meritorious, no article should be advertised unless the chemical formula be given, or in the case of a pharmaceutical compound unless the name and proportion of each active ingredient appear. That many advertisements may be lost is quite probable, but the time has arrived when a firm stand should be taken, not only by the *Journal of the American Medical Association* and State journals, but by all reputable medical journals."

We heartily commend this to the careful attention of the officers of the State medical organizations of Michigan, New York, Illinois, Nebraska, Maryland, Wisconsin, Oklahoma, and Kansas.

Objectionable Advertising.

C. S. N. Hallberg, Chicago, H. W. Wiley, Washington, D. C., and H. C. Wood, Jr., Philadelphia, give accounts of cases illustrating fraudulent claims of patent medicines, complexion powders, etc., and notice certain rulings of the Postoffice Department and of the law officers of the government. For a time the Postoffice Department prohibited the sending of poisons through the mail. Influence has been brought to bear, however, and the ruling was changed so that it is possible to send any poison through the mail, provided it carries the label or superscription of the manufacturer or dealer. The authors call the attention of the department to the fact that in almost every state poisonous remedies must be marked with poison labels indicating their dangerous character, and it would be well for the Postoffice Department to follow their example. The ruling of the Department of Justice in regard to the withdrawal of mail privileges is rather loose, and many fraudulent medical concerns are working under it with impunity. The difficulty of obtainiug legislation to mend the matter is chiefly in the fact that many of the senators and representatives are themselves the dupes of these concerns, believing that they really have some virtue.—*Journal A. M. A.*, September 16th.

Well-Deserved Honor.

Dr. T. D. Crothers of Hartford, Coun., superintendent of the Walnut Lodge Hospital, has accepted an invitation to deliver the first oration in the Normau Keer memorial lectureship, at London, England, October 10, 1905. Dr. Keer will be remembered as an emiuent London physician who made a special study of inebriety, alcoholism and other drug disorders. He wrote several excellent books on this subject, and was instrumental in securing the enactment of laws for the control of inebriates, and the promotion of hospitals for their care throughout Great Britain. He founded the British Society for the Study of Inebriety, in 1884, and this society and his frieuds have organized a memorial lectureship for yearly orations on his life and work. It is a very pleasant recognition of the progress of medical science in this country that an American physician should be invited to deliver the first lecture.

Secret Remedies.

Practically the entire controversy really rages about the remedy of unknown composition, and all attempts to prove inconsistency cannot disprove the propositions that the man who prescribes a remedy of composition unknown to him endangers his patient by subjectiug him to (1) the possible administration of some component drug perilous to him in his present condition, and one which the physician would not administer, if he were aware of it, in that particular case; (2) the administration of some component drug in a quantity that a proper knowledge of the facts would preclude in the case in point; (3) the possibility of a dosing with something to which idiosyncrasy renders him especially susceptible, with the danger that not knowing the cause of the consequent serious symptoms the physician may commit the fatal error of judgment, of pushing the remedy instead of discontinuing it, and finally (4) the possible administration of a drug which, viewed even as a "clinical entity," may not be the same to-day as it was a little time ago. Such cases of materially "amended formulæ" have happened.—*St. Louis Medical Review.*

UTERINE FIBROIDS COMPLICATING LABOR.*

By F. R. HOREL, M. D., Arcata.

THIS subject, that of uterine fibroids complicating labor, has not been chosen on account of any special knowledge of my own in the management of these most difficult and dangerous cases, but to call your attention to the fact that we know not the day nor the hour when we may be called upon to face a furious, if not a fatal hemorrhage, or, overcoming this, that we may not loose our patient from sepsis, to the end that we may, should such a complication come to us, be prepared to do the best possible for our patient.

I had been in obstetric practice nearly nineteen years, had treated many fibroids of the uterus, but these two are the only ones complicating pregnancy:

Case No. 1. February 7, 1904. I was called at night to see a lady about 27 years old who had always been strong and healthy, the mother of three children, the youngest three weeks old. Labor said to have been normal in every way. Got up the 10th or 11th day feeling well and had gained in strength up to the 20th day, when, without pain or warning of any kind a hemorrhage started, but grew less when in a recumbent position. She felt well and looked well, except being a little pale. On examining I found what I thought to be a uterine fibroid, presenting at the os, very little hemorrhage, so I gave ergot and advised letting matters rest till morning. In the morning, with the assistance of two nurses and patient under anesthetic I operated. Situated in the posterior wall of the uterus, just above the internal os, I found a fibroid the size of a small orange. The capsule had ruptured so it was easy to grasp the tumor with vulsellum forceps. Then began the process of enucleation, which, after some difficulty, was accomplished and the tumor delivered. There was very little hemorrhage. Patient had an uninterrupted recovery and has remained well ever since.

Case No. 2. A well nourished girl of 19 years, family history good, married ten to twelve months. I saw her for the first time since marriage April 11, 1904. Found her in labor, os dilating, breach presentation, two or three weeks short of term. After a wait of some 10 hours, os well dilated, progress slow, under a partial anesthetic, I introduced the hand and changed to footling. The head not coming through readily I applied short forceps and delivered. Placenta expressed under contraction, examined carefully and found to be perfect. No hemorrhage.

Everything went well until the 10th day, when the temperature began to creep up and pulse to quicken, temperature reaching 100°F. Gave small doses of calomel, followed by sol. of mag. citrate. Still the temperature did not go down. Then to my surprise the flow began to increase, changing from dark to bright red. Patient became restless, complaining of backache and severe headache. The 11th day after labor conditions were not improved, temperature 101°, pulse ranging from 100 to 115 and weak; head still aching. No odor to lochia. Contractions weak. Gave ergot and strychnia. The next day, April 23d, twelve days after labor, conditions unchanged, I used a dull curette and flushed uterus out with sterile water. Hemorrhage checked, temperature dropped to 99°, pulse to 100. But the evening of the 24th the 13th day, and about 30 hours after curettement, hemorrhage started up with a gush. On examination found a hard mass just above internal os. Hasty preparation was made and I grasped with forceps and enucleated a fibroid about the size of a small hen's egg. Capsule had ruptured and it turned out quite easily from its bed, which was in posterior wall, just above internal os.

I again washed out uterus and applied iodin and carholic acid to capsule and beyond. Hemorrhage ceased, temperature began to decline, but patient was very anemic from loss of blood. Digestion bad, pulse weak, but responded fairly well to strychnia. Dr. Charles Mills of Arcata was then called in consultation and again on the evening of the 26th, two days after the operation, Drs. H. Gross, Sinclair and Mills kindly saw the patient with me in consultation.

Shortly after this the nurse, in giving the normal salt enemas to stimulate the patient, found evidences of impaction, although the nurse had reported the bowels moving every day, they had not been moving enough. This would account for the temperature not going down to normal or below, after the operation, and would also account for the digestive disturbances which kept up until the bowel trouble had been cleared up. She made a rather slow, but good recovery.

I wish to dwell particularly on case No. 2. I do not believe that we should curette every time we are in doubt, on the other hand, I think sometimes we should study what not to do. Had I known of that fibroid I would not have put a curette into the uterus, although it was dull and manipulated very gently. There had been absolutely no symptoms to cause me to suspect its existence, except hemorrhage, and that we get from other causes.

Being small and situated so close to the posterior, uterus relaxed and os patulous, the curette which was a douche combined, slipped in and out with the cause of the trouble still in doubt.

Most writers tell us we should examine and locate these tumors early, note their exact size and location, then should they occupy a position which will be likely to give rise to trouble during labor, myomectomy or hysterectomy should be performed to avoid such complications.

But in cases where the patient has not been seen before labor begins, or where there have been no symptoms before hand causing us to suspect trouble, what are we going to do?

In a paper presented before the County Society of New York, Dr. Marx says:

With few exceptions fibroid tumor of the uterus should at all times, if possible, be treated, or such treatment instituted before the advent of pregnancy. Their association with pregnancy forms a complication which in many patients must be looked upon, not as a benign, but as a malignant state. With hardly another complication in the entire domain of obstetrics are we surrounded with such a mist of doubt as with this one, nor can we ever certify before with what we may meet, immediate or remote. No matter how small or insignificant the tumor may be in the non-pregnant state, no living being can tell, no matter what the location of the tumor, what we may expect during labor; again, that we may not be confronted with an impossible labor, a fatal hemorrhage; or, overcoming these, that our patient may not die of sepsis due to the sloughing of the tumor; or if, then, it may not end with what the pregnancy should have been anticipated by—a hysterectomy. But nature is kind to the poor women with fibroid uteri, for many of them are incapable of conception. Again, should there be found a "fibroid uterus" in any woman who presents herself for such symptoms as would warrant a pelvic examination I would unhesitatingly advise a hysterectomy, except in those few cases where a simple myomectomy could be done, or where there is a vital indication against such a radical measure.

A diagnosis of pregnancy with a safe fibroid tumor as a complication, i. e., one situated at the fundus, is often exceedingly difficult. * * *

Experience teaches us that trouble is to be expected during the third stage of labor and during puerperium. These dangers can be summed up in two words—hemorrhage and sloughing. Fibroids during and after labor must be handled gently and with care, avoiding as much as possible any traumatic insult. The occurrence of adherent placenta due to the concomitant endometritis that goes so often with fibroids is the first complication that may confront us. Forcibly digging away such an afterbirth invites lesions of the tumor capsule proper, and the danger of cutting off its nourishment becomes evident. Where great difficulty is experienced in the enucleation of an adherent placenta under the conditions I would rather be inclined to tightly pack such an organ with gauze, with the placenta in situ, and thus await its natural exit (in perhaps 24 hours) than invite sepsis and sloughing by the extra hazardous and the forcible means of digging out this placenta. Yet, in one case, a total hysterectomy was forced upon me in order to deliver an adherent placenta in a badly diseased fibroid uterus, the attempt to deliver by the vaginal route having utterly failed. The treatment of hemorrhage, so often present, is one of relative simplicity, and this by means of the firm intrauterine pack, applied by the gentlest method possible, in order to avoid traumatism, which is always the greatest and most potent factor in inviting sloughing of the tumor by causing a lesion of its capsule. It is a very common experience of the writer in cases seen in consultation that these fibroids have been acting harmlessly until after the curette had been used for the removal of the supposed secundines. So often has this been my experience that I would sound a note of warning that the use of the curette in a fibroid uterus recently pregnant or even in a non-pregnant condition, is one fraught with the greatest danger. Its use, in many cases, is absolutely not indicated, but your experience will probably be similar to mine; that just as soon as a puerperal woman has a rise of temperature her physician at once, without much forethought, thinks first, last and all time of the curette. To the average mind fever at this time means sepsis from retained products of conception. The poor uterus stands the brunt of the attack, even though the condition is due to an entirely different cause. The curette has no place in the fibroid uterus, whether puerperal or not. When we are sure, and this can best be certified to by the hand,

*Read at the annual meeting of the Humboldt County Medical Society March 14, 1905.

that the temperature is due to a sapremia sepsis such products in the uterus can and must be removed by the hand; and the curette, under no condition, should ever be employed.

But usually temperature and pulse rise in a fibroid puerperal uterus are due to beginning necrotic changes in the tumor. If we are in doubt we can surely wait for symptoms indicative of these changes. The low temperature, the rapid pulse and the decided local pain in the uterus, with or without the fetid lochia, all make too evident what the lesion is. Intramuscular and submucous fibroids are those that give the best prognosis and the readiest means of extirpation. Examination of the interior of the uterus shows the lacerated capsule and the point of cleavage for a simple enucleation of the tumor. Treatment along simple aseptic lines and attempting to do too little rather than too much, is the best means of overcoming this complication. Sub-peritoneal sloughing fibroids are far more difficult to attack and consequently make the prognosis worse.

To make my position clear as to fibroids complicating pregnancy, I submit the following resume:

1. Prophylaxis. Every fibroid during the childbearing period, with few exceptions, should be attacked by surgical means.

2. During pregnancy. Safe fibroids, i. e., those beyond the dilating zone of the uterus, should be carefully watched. Every complication during pregnancy depending upon the fibroid should warrant our attacking surgically the condition, or, at least provoke us to the indication for emptying the uterus.

3. During labor. Again, safe tumors need watching. The resultant complications must be met energetically, but gently, as they arise, i. e., hemorrhage, tardy labor.

4. Sloughing and necrosis of a puerperal fibroid must not be mistaken for retained secundines. This doubt must be eliminated by exploration with the clean aseptic hand. Retained secundines are always to be removed manually, and under no condition must the curette be employed, because of the great danger of laceration of the capsule, and consequent sepsis.

5. Sloughing and necrotic fibroids are always to be attacked surgically, either by enucleation or by a hysterectomy.

COUNTY SOCIETIES.

Alameda County

The Alameda County Society held its regular monthly meeting on October 16th.

Dr. R. T. Stratton read a paper on "The Treatment of Aneurysm by Direct Gradual Arterial Closure," reporting a case treated by this method.

The paper reviewed the animal experimental work done by Dr. Stratton, reports of which have been previously published, in which he succeeded in dogs in closing large arteries by gradually occluding the vessel by means of a specially devised appliance, the purpose with respect to aneurysm being to promote thrombus formation in the sac by this gradual occlusion of the afferent artery. He has had opportunity to apply this method of treatment to but one case of aneurysm, involving the abdominal aorta. The operation consisted in making an incision through the abdominal wall from the ensiform cartilage to the umbilicus. The tumor was found to be very large and it was very difficult to isolate the aorta above the mass. This was finally accomplished, however, and a tape passed around the vessel, the tape being gradually tightened by means of a windlass on the instrument which Dr. Stratton has devised for this purpose. The tape and instrument having been properly placed, the wound was partly closed and the patient returned to bed. The tape was tightened slightly from time to time, the patient showing no bad effect from the procedure, and on the second day it was considered safe to completely occlude the vessel. This, however, was followed in a few hours by collapse, and the patient died before the vessel could be freed.

Autopsy showed a large aneurysm, from the sac of which the renal arteries and the ciliac axis took their origin. The ligature about the aorta therefore, which was supposed to be below these vessels, had completely cut off the circulation to the important organs supplied by them, and had so caused the patient's death. The location of these vessels could not be determined at the operation, however, and the accident was unavoidable. Examination of the sac showed it to be filled with laminated clot, which would indicate the efficacy of the method, notwithstanding the outcome in this particular case.

Dr. Nusbaumer read a paper on "Quantitative and Qualitative Leukocyte Changes in Some of the More Common Diseases." This paper was a resume of what is known to-day with reference to this subject and dealt especially with the significance of the leukocyte count in the differential diagnosis of various inflammatory and infectious diseases.

T. C. McCLEAVE, Secretary.

Los Angeles County.

The Los Angeles County Medical Association held its first regular meeting after the summer vacation in the Blanchard Building Friday evening October 6, 1905, at 8 P. M.

The minutes of the previous meetings were read and approved.

The first regular paper was entitled "Displacement of the Heart in Phthisis," by Dr. Henry Herbert. Dr. Herbert exhibited a case. Discussion by Drs. Colliver and Herbert.

The second paper was entitled, "The Relation of Our County Medical Association to the Public Health of Los Angeles," by Dr. George H. Kress. Discussion by Drs. Powers, Follensbee, Witherbee, McGarvin, King and Kress.

Dr. Kress introduced resolutions which were unanimously passed and referred to the Council for action.

Tuesday evening, October 24, 1905, at eight o'clock, in the Blanchard Building the Association was addressed by Dr. J. N. McCormack of the A. M. A. Dr. McCormack's address was intensely interesting and brought out a spirited and valuable discussion. It is expected that many of the ideas developed by Dr. McCormack will be taken up by this Association the coming year.

On the following day, Dr. McCormack, accompanied by Dr. Philip Mills Jones, Secretary of the State Society, and Dr. J. M. King, President of this Association, went to Long Beach and organized the Long Beach Branch of the Los Angeles County Association.

* * * * *

The Los Angeles County Medical Association held a regular meeting in the Blanchard Building Friday evening, November 3, 1905, at 8 o'clock.

The minutes of the previous meeting were read and approved.

The program for the evening consisted of a symposium on "Chronic Interstitial Nephritis," arranged by Dr. J. H. Utley, and read as follows: (1) Etiology, Dr. J. Lee Hagadorn; (2) Pathology and urine analysis, Dr. Rea Smith; (3) Symptomolgy and diagnosis, Dr. J. H. Utley; (4) Nervous manifestations, Dr. H. G. Brainerd; (5) Ingestion of fluids, Dr. J. A. Colliver; (6) Treatment, Dr. Earl Sweet.

Dr. Smith being absent on account of sickness, his paper was read by Dr. Dudley Fulton.

DISCUSSION.

Dr. Wernigk: In the differential diagnosis between the apoplectiform seizure of this disease and true apoplexy or cerebral hemorrhage, the fever curve as mentioned by Dr. Brainerd is very important. Regarding the restriction of fluids, I sometimes allow my patients as much as one and one-half liters of fluid. Most of them do better on less. It is of first importance to preserve compensation and prevent the degeneration of the hypertrophied heart muscle. One remedial measure that has not been mentioned to-night, and that I consider of value in conditions

of high blood pressure and threatened hemorrhage, is venesection. Flushing the bowels is also an important measure.

Dr. Visscher: I should like to ask Dr. Wernigk how he determines the amount of nitrogenous food the kidneys are able to handle. The ingestion of large amounts of food only raises the blood pressure temporarily. I do not think that a moderately increased amount of blood means, necessarily, an increased blood pressure. I should also like to know how far we should be guided by the call for liquids by the patient. Often one and one-half liters of fluid is not enough for a large man. It stands to reason that such a patient will require more liquid than one weighing, say one-half as much. The old idea of flushing the kidneys is entirely wrong; nothing can be gained by it.

Dr. Wernigk: I give as much nitrogenous food as the kidneys will handle. By repeated estimation of the urea I get a fair idea of the amount of nitrogenous matter excreted, and a fair idea of the activity of the kidneys. I have never been able to get an increase in the quantity of urine by increasing the ingestion of fluids. After all is said we must remember of course that we are to treat the patient and not the disease.

Dr. F. D. Bullard: In speaking of the etiology, the results of undue exercise as seen in athletes must not be forgotten. I saw a case not long ago, boy, 18 years of age, sprinter, had general arterio-sclerosis hypertrophied heart and contracted kidneys. Died of hemorrhage into the internal capsule. The diagnosis in these cases is frequently made first by the oculist. Saw a boy, six years of age, diagnosis made with the opthalmoscope.

Dr. Ferbert: The quotation read by Dr. Sweet lays stress upon the finding of casts in the urine. I think that they may be found in the urine of three out of five healthy men over the age of fifty, at almost any time. They are also often found after operation with out any disease of the kidney.

Dr. Brainerd: It is not the finding of cases, albumen, etc., alone that should be a guide; as has been said, these can be found in the urine of many healthy men; but the finding of these elements in connection with symptoms of persistent renal incompetency.

Dr. Edwards: I think that we have allowed laboratory methods to run away with us a little. If the microscope is depended upon too fully, we will not be able to establish satisfactory relations between our laboratory and our clinical findings.

Dr. Browning: I have had very satisfactory results from the use of the iodide of mercury. Used for its tonic effect, especially upon the glandular system, I feel that it is as valuable as any other drug.

Dr. Colliver: The ingestion of fluids over a certain quantity will raise the blood pressure and tend to break compensation in these cases. For this reason the exclusive milk diet has fallen into more or less disrepute. The patient has to take an excessive amount of fluid to get a proper amount of nourishment. Professor von Noorden allows an amount of fluid only slightly in excess of the amount excreted.

Dr. Theodore Davis: It must be remembered that the kidney is not the only organ implicated in this disease. It is in fact a general disease. I think the liver has almost as much to do in the production of the symptoms of this disease, as the kidney. Probably the uremic symptoms are largely due to the changes in the liver. Albumen and casts can both be demonstrated in the urine of most healthy individuals at some time.

Dr. Fulton: When edema appears and compensation fails, it is certainly time to restrict the fluids. There is a growing tendency to feed these patients more liberally. The general nutrition must be kept up. The exclusive milk diet is not as popular as it once was.

RAYMOND G. TAYLOR, Secretary.

San Bernardino County.

San Bernardino County Medical Society met, pursuant to adjournment in the Y. M. C. A. building, in the city of Redlands, twenty-five members being present, with some visiting physicians. Dr. Hoel Tyler, president, in the chair, and Dr. J. M. Hurley, secretary, at the desk. Reading of the minutes of the last meeting and approval of the same being ordered.

Under application for membership Dr. Hurley, the secretary, reported the name of Geo. Knapp Abbott of Loma Linda, Cal., and Dr. Tyler, the president, reported the name of Dr. S. Y. Winne, as applicants for membership. These names were referred to the board of censors to be reported at the next meeting. The board of censors presented the following report: "Redlands, Cal., Nov. 8, 1905. We hereby recommend Dr. Woods Hutchinson as worthy to become a member of this Society. Signed, Dr. R. Strubel Gibbs and Dr. J. E. Payton, Board of Censors." Upon motion the report was received and Dr. Hutchinson unanimously elected a member.

Dr. Hoel Tyler presented a case of failing eyesight, that began at about the age of 7 years, in a boy of about 11 years of age. First symptom was an attack of explosive vomiting, which has occurred occasionally up to the present date. The sight in the left eye failed first, then the right eye and now the boy can see but little from either eye. The mother of the boy stated that Dr. Ellis of Los Angeles has said that it was atrophy of the optic nerve. Dr. Liverman made an examination of the boy and stated that in his opinion some pressure near the base of the brain probably caused the failure of sight. Many other doctors rather favored this opinion, but the symptoms being so marked only a correct diagnosis could be arrived at by closer observations. Dr. Tyler stated that he would get a better history of the case and report it at a later meeting of this Society.

Dr. Harris, who was to read a paper at this meeting, not being present, Dr. Woods Hutchinson was called on by Dr. Tyler to deliver a lecture. Dr. Hutchinson's subject was "The Human Chest in Tuberculosis Subjects." Dr. Hutchinson takes the view that the chest in this complaint is more round than flat, the latter view being that of most text-book writers upon this subject. Dr. Hutchinson presented many drawings illustrative of his views. Dr. Mosley presented a tuberculous subject well advanced, upon which Dr. Hutchinson applied the calipers and demonstrated that even in this well advanced case the chest was more than normally round and drawn up. He assigned reasons for this latter condition. At the close of Dr. Hutchinson's address Dr. Hurley offered a motion that the thanks of this Society be tendered Dr. Hutchinson for his able and interesting address upon this subject and that he furnish the secretary brief copies of his address for publication, which he consented to.

Under the head of unfinished business Dr. Strong's resolution in relation to amending the by-laws was taken up and was discussed by Drs. Tyler, Hurley, Liverman, Bennett, Thompson, Gibbs, Blythe and others. When vote was taken on the amendment it was negative by the decisive vote of 5 to 12.

Adjournment was taken to the second Wednesday, the 13th day of December, 1905, in San Bernardino, Cal.

J. M. HURLEY, Secretary.

San Francisco County.

Meeting called to order at 8:35 P. M., Dr. Rixford in the chair.

Minutes of the last meeting read; motion being made and carried that the reading of the portion of the minutes relating to the new by-laws be dispensed with. Minutes approved.

The following proposals for membership were read and referred to the Committee on Admissions: Drs. Sol Hymann, S. Iglick and J. S. Parsegan.

The Committee on Admissions reported favorably on the proposals of Drs. Camillus Bush, Percy Sumner, Ethan Smith and they were declared members by the President. Dr. E. R. Taylor was elected an honorary member.

The following papers were read before the Society:

"A Case of Hematometra due to Myoma of the Cervix," Dr. Chas. Levison.

"Pyloric and Duodenal Obstruction Due to Pericoli Cystic Adhesions," Dr. P. K. Brown.

"Danger and Protection in X-ray Work. Demonstrations," Dr. W. Lehmann.

A resignation was read from Dr. H. E. Brighouse, who has moved to St. Helena. Moved and seconded that resignation be accepted. Motion carried.

A resignation from Dr. Grossman was read and the Secretary stated that he had sent two bills to Dr. Grossman but that they had been returned undelivered. Moved and seconded that Dr. Grossman's name be dropped from the rolls. Motion carried.

A communication was read from the Secretary of the State Medical Society which stated that the Council of the State Society has rescinded its action of September 10, 1904, regarding the eligibility of Homeopaths or Eclectics for membership. This question must now be settled by each County Society. The A. M. A. urges that mere membership in a Homeopathic or Eclectic Society be not considered as a bar to membership in our Society and in this the Council of the State Society concurs.

Moved and seconded that this communication be placed on file. Motion carried.

A letter from the Secretary of the State Medical Society regarding the hostile attitude of the Propontary Association of America towards the A. M. A. was read and ordered placed on file.

Dr. Carpenter presented the bill for printing the proof by-laws. It was moved and seconded that the bill be paid and appropriation be made for the publication of 1000 copies of the new by-laws in pamphlet form. Seconded and carried.

The following list of names for nominees for the 21 directors were presented to the Society: Drs. L. W. Allen, J. D. Arnold, Geo. Blumer, P. K. Brown, Harold Brunn, C. J. Burnham, F. B. Carpenter, W. F. Cheney, C. M. Cooper, Geo. H. Evans, A. A. Gianinni, H. Gibbons, Jr., A. W. Hewlett, S. J. Hunkin, S. S. Kahn, W. W. Kerr, C. J. Levison, Howard Morrow, W. Ophuls, H. D'A Power, J. Rosenstirn, H. A. L. Ryfkogel, A. B. Spaulding, D. Tait, W. I. Terry, W. S. Thorne, H. M. Sherman, P. M. Thomas, P. M. Jones, H. Gunn, J. H. Barbat, F. Dray, A. J. Lartigau, E. M. Wemple, Sr., M. Kibbe, E. Rixford.

The meeting adjourned at 10:55.

H. E. ALDERSON, Secretary.

Santa Clara County.

The regu'ar monthly meeting for October was held on the 18th at the Bristol Hotel, San Jose, convening at the hour of 8 P. M., with the following attendance: Doctors Asay, Witter, Southworth, McNary, Fraser, Lusson, Marvin, Mulcahy, Jordan, Hablutzel, Frasse, Smith, Wagner, Wright, Chilson and Holbrook. In the absence of Dr. Osborne, the secretary, Dr. Jordan was made secretary pro tem. The President reported the arrangements completed for the District meeting on the 20th of October and for the reception and banquet to be given in honor of Dr. McCormack.

Dr. Witter, Chairman of Committee on Ethics, made report on matters referred to that committee and a special committee consisting of Doctors Mulcahy, McNary and Jordan were appointed to pursue the subject further with power to act. The society referred the subject of "Contract Practice" to the Committee on Ethics with request that it report thereon if possible at the next meeting. Application for membership was received from Dr. Edward Newall, and was reported upon favorably by the committee.

The paper of the evening was by Dr. Mulcahy on the subject of "Medical Ethics." The paper was well received and was discussed by Drs. McNary, Fraser, Frasse, Holbrook, Wagner, Southworth, Jordan and Asay.

The next regular meeting of the society will be held at the Hotel St. James, November 15, 1905, at the usual hour. The paper of the evening will be by Dr. Frasse, First Vice-President; subject, "Some Account of the Physicians of California from the Earliest Times, Spanish and Mexican, Until the Days of Gold." This interesting paper will be illustrated by several drawings and photographs.

A. E. OSBORNE, Secretary.

San Joaquin County.

The last regular meeting of the San Joaquin County Medical Society was held at the residence of Dr. J. D. Young, October 17, 1905. The following members were present: Drs. R. B. Knight, S. W. R. Langdon, J. P. Hull, H. W. Taggert, J. D. Dameron, E. A. Arthur, H. E. Sanderson, Margaret H. Smyth, J. D. Young, D. F. Ray and Barton J. Powell. Drs. L. Olivieri of Stockton and B. F. Surryhne of Modesto were elected members of our Society.

The evening was devoted to planning a reception for the Northern District Medical Society which meets in Stockton Tuesday, November 14th. A large number of doctors from the northern part of the State are expected in Stockton where an afternoon and evening session will be held to be followed by a banquet. Preparations have been going on for some time past and the local Society feels that they can assure the visiting doctors a profitable and pleasant time. Drs. A. W. Hoisholt, W. J. Young and D. F. Ray were appointed as committee on music. Reception committee consists of Drs. R. B. Knight, H. W. Taggert and H. E. Sanderson. Committee on Arrangements is Drs. J. P. Hull, S. W. R. Langdon and Barton J. Powell.

After refreshments the society adjourned.

BARTON J. POWELL, Secretary.

Shasta County.

Our last meeting, held October 21st, was an unusually interesting one. The subject of contract society and lodge practice and minimum fees for life insurance examinations was introduced, and after free discussion the following resolutions were unanimously adopted:

Whereas, It is the sense of this body that contract society and lodge practice as now performed is detrimental, degrading and humiliating to the medical profession, therefore be it

Resolved, By the Shasta County Medical Society in regular meeting assembled, that no member of Shasta County Medical Society be permitted to enter into contract relations with such societies; and be it further

Resolved, That no physician in the employ of such societies be eligible to membership in the Shasta County Medical Society. Be it further

Resolved, That no member of the Shasta County Medical Society be permitted to consult with any physician following such contract practice.

In regard to life insurance examinations the following was adopted:

Resolved, That the minimum fee for examination for the "Old Line" Life Insurance Companies be five dollars, and for Fraternal Insurance Companies and all other Societies and Organizations, two dollars.

These resolutions shall be in effect after January 1, 1906.

Drs. R. E. Bolling, C. E. Boynton, F. Stabel of Redding and George B. Worthington of McCloud were elected to membership.

The following officers were elected to be installed in January, 1906: Dr. C. E. Reed, President; Dr. Thos. J. Edgecomb, Vice-President; Dr. R. F. Wallace, Sec-

retary and Treasurer; Trustees: Drs. B. E. Stevenson, F. Stabel and R. E. Bolling. Executive Committee: Drs. S. T. White, Robt. T. Legge and L. A. Bauter.

Dr. Robert T. Legge presented a paper reporting the clinical history of many cases of typhoid fever occurring in an epidemic in McCloud in the summer and fall of 1903. This paper elicited much interest and evoked considerable discussion.

A paper by Dr. C. E. Reed, subject, "Peritonitis," was also read and discussed.

R. F. WALLACE, Secretary.

MEDICAL SOCIETIES.

Redlands Medical Society.

The first meeting of the Redlands Medical Society since the summer vacation was held on Wednesday afternoon, October 18, 1905. A large attendance was present. Drs. Woods Hutchinson and H. G. Hill, of Redlands, and Dr. I. B. Parker of Grant's Pass, Oregon, were visitors. Dr. M. Antoinette Bennette, of San Bernardino, was elected a member. An application for membership was received from Dr. Woods Hutchinson, formerly of Portland, Oregon, now a resident of Redlands. The committee appointed at the June meeting to draw up resolutions expressing the views of this society in regard to contract practice, etc., reported as follows:

"To the officers and members of the Redlands Medical Society: Your committee to whom was referred Amendments Nos. 1 and 2 adopted by the Sonoma County Medical Society would beg leave to report as follows:

"We appreciate the endeavor to maintain at a dignified figure charges for professional services, and believe contract work as it exists in certain benevolent societies and with individual families should be discountenanced. On the other hand, we think we may contract to act as railway surgeons and not merit expulsion from any medical society on account of such contract.

"Signed and submitted respectfully,

J. E. PAYTON,
T. M. BLYTHE,
Committee."

The report of the committee was duly accepted and was adopted by the society.

The paper of the day was by Dr. Gayle G. Moseley, his subject being "Prognosis in Tuberculosis." A general discussion ensued. The society adopted a motion to hold evening meetings hereafter.

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The November meeting of the society was held at the residence of Dr. D. C. Strong on Wednesday evening, the 15th, the president, Dr. C. A. Sanborn, in the chair. Dr. Taltavall, the secretary, being absent, Dr. Moseley was appointed secretary for the evening. Those present were Drs. M. Antoinette Bennette, of San Bernardino; J. H. Evans and W. P. Burke, of Hyland: F. H. Koepke, of Mentone; and J. L. Avey, Hoell Tyler, E. A. MacDonald, C. E. Ide, F. H. Moore, D. C. Strong, S. Y. Wynne, T. C. Pounds, J. A. Shreck, G. G. Moseley, H. M. Haskell, Woods Hutchinson, W. B. Power and C. A. Sanborn, of Redlands.

The paper of the evening was presented by Dr. Wynne, his subject being "The Doctor." He reviewed the history of the doctor and his relation to the people from ancient times to the present day. He also advocated a national board of Medical examiners to be appointed by the government, and that a certificate from this board should be recognized by the examining boards of the different States. The paper was discussed at length by all the members present.

Dr. Tyler reported a case of large abscess in the sheath of the rectus muscle just above the bladder, following typhoid fever; also a case of skin-grafting for a severe burn. Dr. Power exhibited an exceptionally large prostate and two large calculi removed from a patient by the perineal route.

The matter of the contamination of the water supply was discussed, and, while it could not be said positively that our water supply was polluted in any way, it was thought best to appoint a committee to investigate the matter and report at the next meeting. The president named Drs. Power, Hutchinson and Tyler as such committee.

The thanks of the society were extended to Dr. Strong for his courtesy and entertainment.

Dr. Sanborn invited the society to hold the next regular meeting at his residence, which invitation was accepted.

G. G. MOSELEY, Secretary pro tem.

Northern District Medical Society.

On November 14, 1905, occurred the annual meeting of the California Northern District Medical Society. A large number of doctors from the northern part of the State attended. The regular session was held in Masonic Hall from three to five, during which time the following program was carried out:

Address by R. B. Knight, President of the San Joaquin County Medical Society.

Remarks by B. J. Powell, Chairman of the Committee of Arrangements.

Annual Address of the President, "Mechanical Obstruction of the Ileo-Cecal Valve," by J. D. Dameron.

"Tetanus Antitoxine," with report of a case, by D. F. Ray.

"Rupture of Abdominal Viscera," by A. M. Henderson.

"Frequency of Pterygia in the San Joaquin Valley," by B. J. Powell.

"The Terminal Stages of Cardio Vascular Disease," by E. W. Twichell.

The business session was held from seven to nine in the evening. Between the hours of five and seven the visiting doctors were taken in private carriages, carry-alls and automobiles to visit some of the prominent hospitals and points of interest in and about Stockton. They received a special welcome at the Emergency Hospital where they were shown through by Dr. Ladd, the attending surgeon. At St. Joseph's Home, the sisters and nurses in charge gave the visiting doctors a cordial reception and every part of the hospital was visited. The Stockton Athletic Club was also visited and other points of interest.

In the evening the local medical society tendered the California Northern society a banquet at Philson's Cafe.

The following toasts were happily responded to: "The California Northern District Medical Society," Dr. E. E. Stone, Napa; "Stockton," Dr. J. D. Dameron, Stockton; "State Society," Dr. J. H. Parkinson, Sacramento; "Reminiscences," Dr. A. W. Hoisholt, Stockton; "The Full Stomach," Dr. W. E. Bates, Yolo; "The Ladies," Dr. F. R. Clarke, Stockton; "Sacramento," Dr. A. M. Henderson, Sacramento; "The British Medical Society," Dr. W. W. Fitzgerald, Stockton; "Our Babies," Dr. H. W. Taggart, Stockton.

Adjournment to meet in Chico for the semi-annual meeting.

BARTON J. POWELL.

San Francisco Polyclinic Gathering.

Dr. Ryfkogel exhibited a specimen and photograph from a case of Banti's disease.

The patient, a female aged 40, height 5 ft. 3 in., weight 122 lbs.; mother had died of cirrhosis, began to vomit blood and pass blood from rectum in 1898. She had spell of cramps about this time and shortly afterward noticed a tumor in her side. She had had swelling of the feet, but showed none at the time of examination. At intervals she had had abundant ptechial hemorrhages and shortly after Dr. Ryfkogel first saw her she had an attack of these on the legs, which became almost confluent. As far

as she knew she had not had any extensive abdominal dropsy, but thorough examination showed presence of some fluid in the flanks.

On examination the heart and lungs were normal, liver was definitely smaller than normal. The spleen was greatly enlarged, extending 2 centimeters below the umbilicus and 7 centimeters to right of the median line. The notch could be distinctly felt.

The spleen was removed by Dr. Ryfkogel August 13, 1904, through a median incision. It was extensively adherent to the stomach, bowels and diaphragm and to the liver, which was markedly cirrhotic. The very severe hemorrhage resulting from these adhesions could only be controlled by packing. Unfortunately the wound became infected. The patient did well otherwise for four weeks, although in the last two weeks she showed a slight daily evening rise of temperature. One day while on the roof garden she suddenly collapsed, vomited blood and died 36 hours later.

The autopsy showed a thrombosis of the superior mesenteric vein, beginning gangrene of the small intestine and a small abscess under the diaphragm at the side of the tip of the Mickulicz drain.

On first examination the blood showed 3,590,000 red cells, 2000 white cells and 30 per cent hemoglobin. Before operation this rose to 40 per cent. The differential count showed 77 per cent neutriphiles, 9 per cent large mononuclears, 2 per cent eosinophiles, 12 lymphocytes, no myelocytes. After the operation the white cells shot up to 25,000, but subsequently dropped to 12,000. The hemoglobin after operation rose to 60 per cent and was at this point at the time of her death.

Dr. M. W. Frederick: The young woman whom I present to you to-night first came under my treatment in the month of May, this year. At that time both nares were quite blocked, and the lids of the right eye were so swollen that the eye could not be opened. A partial removal of the contents of the right naris caused the swelling in the region of the right eye to subside, and also allowed a small amount of air to pass through the right nostril. She was then taken to a hospital, with the object of removing the ethmoidal cells, and cleaning out the sphenoidal sinus, which were supposed to be the seat of the disease. Opening into the maxillary sinus, through which the operative procedures were to take place, was very easy, as with the first stroke of the mallet the buccal wall of the sinus came away in one piece, disclosing a sinus which seemed perfectly healthy. The removal of the ethmoidal cells and the entrance into the sphenoidal sinus offered no difficulty whatever, so that there was all reason to believe that the result of the operation would be satisfactory. After her return from the hospital she was treated in the office for several weeks, but the stenosis of the nostril kept increasing. What annoyed me more than anything else were the masses of brawny exudate which kept reforming, no matter how often I removed them. A searching examination gave me good grounds to suspect lues, and to begin the exhibition of potassium iodide. The effect was almost magical. The exudates disappeared and the tissues of the nose began to shrink, not alone on the operated, but also on the other side. After about two weeks a large sequester of dead bone in the septum was seen and removed. Since then there has been no further trouble, and, as you can see to-night the nose is quite free, and the opening into the right sphenoidal sinus can be seen by anterior rhinoscopy. There is no bad odor to the nose, whereas at first it was very unpleasant to come near the patient.

The reason I show this case to-night is to emphasize the fact that the nose and throat specialist must be constantly on the lookout for lues. In this case, having an unmarried female to deal with, I felt backward about asking pointed questions, and when I did make up my mind to find the truth I had to preface my questions with a profuse apology in case I were on the wrong track. But the nose and throat are such places of predilection for lues in all its stages, that one must constantly bear it in mind. In this case the patient would have been saved the annoyance of the operation had the correct diagnosis been made at the outset.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

The regular monthly meeting was held on November 19th in the rooms of the San Francisco Polyclinic the president, Dr. K. Pischel, in the chair.

The scientific program follows:

Dr. Geo. H. Powers presented a case where a rusty rivet entered the eye of patient. He considered the foreign body to be lodged in the sclera and thought that the eye need not be removed as the trouble was not involving the ciliary body. When the patient came to him there was marked chemosis, traumatic cataract with no light reflex. Patient could barely count fingers and suffered no pain. The doctor presented an admirable skiagraph showing the foreign substance in position.

Dr. Barkan said that the foreign body should be located and an attempt made to remove the same. Failing in this the eye must come out.

Dr. Card concurred in this view.

Dr. Pischel had the same suggestion.

Dr. W. F. Southard presented a case of burning of the conjunctiva and cornea with lime. The patient works in a beet sugar refinery and accidentally got some of the mixture of molasses and lime into his right eye. There was extensive inflammation of the palpebral conjunctiva, but no symblepharon. The cornea had a peculiar whitish appearance and the iris and pupil were invisible. No pain. These burns resemble those of babbitt metal and the doctor asked whether the burn extended below the epithelium, as upon this point the prognosis depended. The treatment was sterilized vaseline, to prevent adhesions, and atropine.

Dr. Southard also presented a case of microphthalmos, with a congenital cataract. The cataract is usually found in these cases and is not developed. The eye would not have useful vision even were the cataract removed.

Dr. Card suggested needling of same.

Dr. Southard thought this might be done but for cosmetic reasons only.

Dr. Powers showed a little boy who had been operated on for convergent strabismus, by the Panas method. The operation was performed here at St. Mary's Hospital by Dr. D. B. St. John Roosa of New York. Sight was nearly normal in both eyes, patient accepting under atropine a plus 0.75 sphere and getting twenty-twentieth vision. There was possibly 2 degrees of convergence at present.

Dr. Powers had read much about this operation and as Panas, a reliable authority, had performed it a number of times on the cadaver before trying it on the living he felt that his views were correct. Dr. Roosa had performed the operation a number of times in New York with almost uniform success. The procedure is based upon the assumption that in strabismus both eyes are involved and the contracted muscles are in a state of clonic spasm. Therefore they are to be stretched before severed. This is done usually under general anesthesia, both eyes being operated at the same sitting.

The eye is grasped with forceps and slowly turned out or inward, as the case may be, and held in that position for a few minutes. This stretches the offending muscle and overcomes the contraction. It is now cut at its insertion and a purse-string suture closes the conjunctiva. The same is done to

the other eye and both are bandaged. A few days later, if divergence exists, nothing is done; if convergence, the accommodation is paralyzed with atropine, and when the redness has disappeared the proper correcting lenses are prescribed.

Dr. Barkan thought that one should be loath to operate both eyes at the same sitting. He said that he would like to see how long the correction would last, and mentioned some cases where he had found it necessary at the expiration of some years to reoperate.

Dr. F. B. Eaton considered the dynamic convergence as about 5 degrees and did not admire the operation. He considers a muscle weakened by this stretching process.

Dr. W. S. Franklin referred to Prof. Schweigger's method of forcibly turning the eye outward after the muscle had been cut. The only difference between the two operations was this fact, i. e., the turning or stretching before or after the muscle was severed. Schweigger had special forceps for this purpose and he did it with the hope of having the cut end of the muscle attach itself to the eyeball further back than it ordinarily would.

Dr. Powers said that he would present the case again at the expiration of six months and thought that that would be ample time to judge the ultimate result.

Dr. R. D. Cohn presented a case of unilateral exophthalmus. The patient was a female, 19 years old, with no history bearing upon the present condition. Right eye has protruded 10 years and patient came to the clinic for another trouble. The vision was good, 6-18—6-12, no fundus changes. X-rays showed no appreciable shadow. The exophthalmus is not increasing and the patient has luxated the bulb a number of times, this latter condition disturbing her mentally. He has given potassium iodine in large doses (5.0–6.0 gm. daily) with no effect upon the protuberance. He considers this a case of benign neoplasm within the orbit.

Dr. Barkan thought this a benign tumor, saying that it might be fatty or an angioma. He felt that the doctor was justified in exploring the orbit by Krönlein's method.

Dr. Powers mentioned a case wherein he had replaced a luxated bulb, the patient being the pet dog of one of his friends. He asked whether, in this case, the sinuses of the nose had been examined.

Dr. Franklin described a case he had witnessed at Fuch's clinic where the orbital tumor proved to be a serous cyst which was opened during the course of the operation, leaving practically no trace of the walls.

Dr. A. Barkan showed a case of one-sided "Morbus Basedowii." These occur in rare instances. It had developed quickly, some tachycardia was present, but Stellwag's and Graeffe's signs were missing. No fundus changes, no bruit.

When the eye is palpated and pushed back into the orbit the patient notices that the next day she has a hemorrhage from the nose.

Dr. Franklin thought that the right eye was only relatively exophthalmic. He considered the left eye as also affected and somewhat prominent, but being so to a lesser degree than the right it gave the latter the appearance of single prominence.

Dr. E. F. Card described a case of hysterical aphonia. The patient was 12 years of age, healthy, but rather phlegmatic in all her actions. Weight 150 lbs. She recovered her voice with the usual treatment (strong faradic current) and was permanently cured.

Dr. Welty minutely described the treatment, insisting upon the fact that these patients must be made to talk at the first visit. Drs. Cohn, Southard and Franklin described similar cases.

W. SCOTT FRANKLIN, Secretary.

MEETING OF CALIFORNIA PUBLIC HEALTH ASSOCIATION, SAN FRANCISCO, OCTOBER 28, 1905.

The president addressed the members of the convention in part as follows: "This is the fifth session of the California Health Association. The object of this meeting is to promote the various methods of forwarding the public health of the State of California, and especially to discuss subjects such as have been suggested by our program.

"Sanitary science is receiving much more attention in the last decade than it has at the hands of Americans during any previous decade. It is dealing with the problem of medicine on broader lines than usual and the results are much greater, so I feel that in belonging to a convention of this kind we are engaged in the most practical medical work that the world knows at present. * * *

"It is not my intention to prolong the introductory speech. I desire to express satisfaction in seeing you here and hope that we may have a successful meeting to-day, and before we leave, lay lines for the meeting next April, when the Association will convene again in this city."

The first paper on the program was an address by Dr. W. F. Snow of the Stanford University on the subject of "Sanitation of Stanford."

In the absence of Dr. Wilbur Dr. Foster opened the discussion as follows: I have been extremely interested in the paper from the fact that it covers ground that has needed covering for a long time in this State. There have been spasmodic attempts made all through the State to do sanitary work and establish certain records, but they have not been continuous, and being isolated, with no relation to the health office, they did not reach the point which they should have reached in order to do any lasting amount of good. I can imagine, in Palo Alto, after their experience, that they will never have another epidemic of typhoid fever. They know the whole sanitary condition of the district, and in the event that one case of typhoid fever appears, or any other disease that is born like that, they could put their finger upon the cause at once and stop it at once. Now, if we could have maps like this and records like this in all districts, we could bring them all together and have a sanitary map of California. It is something I have felt the need of very much. In my office a report will come from some part of the State that there is an epidemic of typhoid fever and assistance is needed. I do what I can, but I have no records. We know, in a general way, where their water supply comes from, but we have no map, even of their pipes or their relation to the sewers. There are many things that Dr. Snow could work out that would help the State—the water supply for instance—it is one of the most important things of this State. I doubt if the health officers in one-quarter of the incorporated towns of this State know anything about the water supply. They do not know where it is brought from, they do not know how old the pipes are, or whether the reservoir from which it comes has ever been cleaned.

In the State Board we have lately started a bulletin which we want to be a State issue. We want to make it a bulletin of the health officers and make it of interest to all to keep in touch with each other. * * * We want to show what is being done for the whole State and if you have anything of interest to the State send it along and we will promise it shall be published. * * * Now, the idea of a State deputy at large is a good one. It had never occurred to me and I do not know that it is possible, but it might be done; however, every health officer of this State is a deputy. It is their duty to enforce the law. Of course, they can only do it in their own district. I will not take any more of your time, but I have been very interested in the paper and I hope it will excite more discussion.

Dr. Simpson, San Jose: In my work in Santa Clara county I have in every district a deputy, and

while I could not get from each one of these deputies a map of his district and so succinct a record, each physician who has been appointed has taken sufficient interest in this matter so that, at any time, in my office, I can get in communication with one of these gentlemen and I can learn what is the condition of that part of the county. Once a month I receive a report from these gentlemen if there is anything to report. The success of the work of the health office and of my work as health officer has depended entirely upon the voluntary assistance of Dr. Snow and Dr. Wilbur and various physicians about the county, who come and help willingly. It shows the interest medical men have in the work of their community. I feel very proud of my deputies and very proud of the work that Dr. Snow and Dr. Wilbur did at the time of the typhoid epidemic and since. This is not a model for Stanford only. It is a model for the whole United States. I want the doctors of this State, and through them, the people of the State, to know that the possibility of an epidemic at Stanford is impossible.

Dr. Williams of Palo Alto, Dr. Ragan, health officer of San Francisco, and Dr. A. R. Ward of the Hygienic Laboratory at the State University, also took part in the discussion.

After a few remarks by Dr. Regensburger, president of the State Board of Health, a recess was taken until 1:30 p. m.

Afternoon Session.

The first paper on the program of the afternoon session was by Dr. Foster, on the subject of "Contamination of Water Supplies."

In the absence of Dr. Canney the discussion was opened by Dr. Snow, who said in part: There are many things that occurred to me during the reading of the paper. Dr. Foster did not speak of any definite location, but I wish to speak of Russian river, where so many of our people go for the summer. A great many students from the university go there and regularly, at the beginning of the early summer season there will be a few cases of typhoid fever along that whole region. I think it is vastly important that pressure be brought to bear upon supervisors of different districts, when people from the city are allowed to go out there and expose themselves, as Dr. Foster has outlined, and then come home as invalids.

Dr. Simpson, Dr. Ewer of Oakland, Dr. Walker and Dr. Bogle of Santa Rosa, and also Dr. Fay of Sacramento participated in the discussion.

Dr. Fay of Sacramento, read a paper on "Undrawn Fish and Poultry." Discussion followed by Dr. A. R. Ward and Dr. W. C. Hassler.

Owing to the lateness of the hour the paper on "Control of Contagious and Infectious Diseases of Aliens Arriving in San Francisco" was omitted, but the subject was ably presented by Dr. H. S. Cumming, Past Assistant Surgeon, U. S. Public Health and Marine Hospital Service, San Francisco.

On account of the unavoidable absence of Dr. Woods Hutchinson the paper on "Quarantine in Typhoid" was omitted, but the subject was briefly discussed by Dr. Fay, Dr. W. C. Hassler of San Francisco and Dr. Von Adelung of Oakland, who said: Discussion has been indefinite by reason of not knowing what we mean by quarantine. We have notification and placarding. That is a step which we take to warn people that they are near a disease which is contagious or infectious, or both. And then we have "quarantine," which means that we draw a line around certain premises. Now, the question as to whether or not we should quarantine typhoid should be determined. If it means, shall we draw a line? why, I stand entirely opposed to such procedure. I am also not in favor of placarding the house. I think we are doing all that can be done in typhoid cases if we have them reported. The important measures are to disinfect the feces and urine, and to avoid contamination of articles. These measures cannot be furthered by quarantine. Supervision by a visiting health official, or public nurse, might aid. Especially should instruction be given regarding the details of disinfecting feces and urine, i. e., the proportion of disinfectant, the time it should stand, and finally the continuance of disinfection of urine for weeks after recovery.

During the evening the Association was entertained at dinner at the Bohemian Club by Dr. James W. Ward. The members of the San Francisco Board of Health, and the President of the State Board of Health discussed the milk problem in San Francisco.

On the following morning the members were the guests of Dr. Cummins, quarantine officer, who took the party to the quarantine station where the plant was inspected, and then for a trip about the bay.

COOPER SCIENCE CLUB.

The regular meeting of the Cooper Science Club was held November 6, 1905.

Report of a case of dysentery with megastoma entericum infection by Drs. Clark and Oliver.

Dr. Clark read the following history of the case:

Patient a male, 29 years of age, a native of New Zealand, came to the clinic complaining of pain in abdomen, diarrhea and blood in stools. F. H. negative. Previous history: ordinary diseases of childhood. Malaria, rheumatism and gonorrhoea. Chancre 5 years ago, no secondaries although patient says he occasionally has sore throat. At time he had chancre, was treated locally and internally for 2 or 3 months. Alcohol none at present, formerly used a great deal. Tobacco moderately.

P. I.—In 1896 while living in Australia patient had 3 or 4 large soft movements a day. This lasted some time but recurred spontaneously. From 1896 to 1901 patient lived in the tropics and he states present trouble commenced while in Java in 1899. At that time he had a bowel movement about every half hour; the movement was soft, small, not very slimy, sometimes yellow and sometimes white in color, no blood. Was advised to go to the mountains in Java which he did, but did not improve. Was treated at Penang by internal medication without improvement. He then went to Singapore and was treated by rectal irrigation, solutions of permanganate of potash and recovered in about 10 days. Remained well for about two years, having one or two normal passages a day. In 1902 he began again to have 2 or 3 large soft passages a day gradually getting worse over a period of 6 months until he had bowel movements every half hour. Went through the same treatment of permanganate of potash rectal irrigation and recovered but recovery did not last long, occasionally having slight attacks of diarrhea, until about six months ago when they became worse and increasing in severity until coming to clinic October 23, 1905, when he had passages every half hour, small in amount, soft, occasionally slimy and containing blood. P. E.—Fairly developed and nourished, face pale. Throat red, tonsils slightly enlarged. Cervical glands very much enlarged. Lungs and heart negative. Liver and spleen not enlarged. Dull pain on pressure over abdomen. No edema of legs. Specimen of feces was obtained and sent to Dr. Oliver for examination. They were found to contain megastoma entericum in large numbers. Of this Dr. Oliver will speak. The patient was sent to Lane Hospital, given castor oil, liquid diet and permanganate of potash 1:5000 rectal irrigations. Improvement followed this treatment.

Report of case by Dr. H. R. Oliver:

Before entering on a description of our case, a brief history of the infusoria will be in order. Donne in 1836 found in the vaginal secretions of women

an undescribed parasite. These were small bodies provided with cilia and flagella on account of which he gave them the name, trichomonas with the specific name vaginale. Vogel, Siebold and Valentin denied their parasitic nature and thought them to be altered epithelial cells. His work was, however, later confirmed by Kunstler and Henneguy in France and Blochmann in Germany whose investigations, while differing in many respects have added to our knowledge. On the whole the parasites were looked upon as of little importance. Since Donne's discovery they have been found in snails, frogs, ducks, etc. Davaine first described them in cholera in the stools and in typhoid fever, and gave them the name of cercomonas hominis. Dock found that the stools of patients with amebic dysentery. They have also been found and described by Ekecrantz and others. Lambli also found them in (as he thought) the stools of children suffering from diarrhea and called by him cercomonas. But Schunberg claims that Lambli cercomonas, 1888, were really megastoma entericum and belong to an entirely different genus. Grassi found and named them mono-cercomonas but it is thought that they were really trichomonas. Epstein made extensive observations in 26 cases of infantile diarrhea and the organism found were pronounced by Prof. Hatschek to be mono-cercomonas. Sternberg found the cercomonas in the mouth. Lenhartz in abscess of the tonsil. Kranneberg in pulmonary gangrene and pleurisy. H. Hill Hassall was the first to find them in the urine and describe them under the name of Bodo urinaris. In 1883 Kunstler of Bordeaux reported the first case in which they were found in freshly voided urine but the species to which they belonged was not exactly known. In 1893 Drs. F. Tilden and Brown presented specimens and photos before the Academy of Medicine but they were later found to be the cilia. Dock was the first to describe them in America in the vaginal secretion of pregnant women at Galveston, Texas. The first undoubted case of trichomonas in the urine was Marchand's in an old man with urinary fistula of the perineum. Dr. K. Muria of Tokio reported also a case which showed flagella and an undulating membrane.

Then Dock found them in the urine of a man in Texas. Up to this time only the trichomonas vaginale of Donne, trichomonas hominis of Davaine cercomonas were found in connection with the human being.

There being some marked difference in the specie, I think it well to describe briefly some of them. The cercomonas is a small oval or round disk body and has posteriorly a single flagella. In the young forms it might be absent. The adult may lose its flagella and protrude a pseudo podia while vacuolation occurs at the same time indicating approaching death.

The trichomonas of Donne is oval or spindle shaped .012 x .01 m.m. From the anterior pole four flagella project and an undulating membrane extends laterally to posterior pole which may be rounded or taper to a tail-like appendage as in the cercomonas. They become vacuolated as death approaches. They also have near anterior pole a row of cilia. Both species in activity motile.

The megastoma entericum, Grassi-Lambli, is pear-shaped .01 x .02 x 0.075—.05 m. m. In the anterior portion is a well marked depression which constitutes the peristome or mouth. In the bottom of this depression near its anterior arc are two round hyalin bodies which represent the nucleii. It has eight flagella in pairs and directed backward. The first pair are at the outer arcs of the peristome and the second and third pair at the posterior arc of the fourth issue from the tapering tail end of the body. Vacuoles are absent, nutrition occurs by osmosis, the parasite adhering to the epithelium of intestinal mucosa by peristome. They are not motile. Grassi first observed them in 1888 in mice, cats, dogs, rabbits and sheep. The mode of reproduction in the flagellata in general is not exactly known. Kolloker and Marchand claim to have observed longitudinal division in trichomonas vaginalis. As to sporulation nothing is known of pathological importance. Cunningham, Grassi and Schunberg thought them common parasites of the intestines. Epstein, however, by his clinical observation shows that at least some of them can produce diarrhea in man. Perroncito claims that a specie of intestinal parasites cause a fatal disease in guinea pigs. Dock does not give a positive statement as to his views as to their pathogenic action.

In 1895 H. Salmon of Frankfurt reported the first authentic case of infection in man with megastoma entericum, though he states they were the same as the cercomonas of Lambli which were according to Schunberg, placed in the wrong genus by Lambli. He reports the case of a young man working in a mill who suffered from diarrhea the cause of which was the megastoma entericum, no other infusoria being present. This man's sister-in-law also had the disease, and so did the other men working in the mill. The infection was attributed to their drinking the unfiltered and unboiled water from the river Elbe.

Salmon describes the diarrhea as watery and mushy stools with some mucus and at times blood, especially after calomel. He states that after five months' treatment they were still found in the stools which were still mushy in character, although the man had returned to work. He describes the parasite as above. He attempted cultivation and animal experiments and they were both negative.

G. Hoppe-Seyler in *Modern Medicine* says we should not disregard sporozoa and infusoria for they often give rise to very stubborn intestinal catarrh which in part shows a similar picture to dysentery and amebic enteritis. In their action they are probably assisted by bacteria and we should not go so far as was done in the case of the ameba to look upon them as comparatively harmless, accidental parasites that appear in intestinal catarrh.

The infusoria diarrhea is more frequent in man than sporozoa and are due to the flagellata megastoma entericum, cercomonas and trichomonas. These parasites like the cercomonas and trichomonas and megastoma entericum rest on the epithelium or vegetate freely in the intestinal contents. They irritate the mucous membrane principally mechanically giving rise to marked peristalsis. They enter the alimentary tract through food contaminated by rats, etc., only the encysted forms pass the stomach, the gastric juice being fatal to the non-encysted forms. The encysted forms develop and give rise to large accumulations. The stools caused by them are frequent, ten to fifteen daily and are most frequent during the day and not at night. They consist of a watery or mushy mass with some yellowish colored mucus. This diarrhea weakens the patient and they finally suffer from mal-nutrition. Especially so if they are present in cases of carcinoma of gastro-intestinal tract, or in cases of tuberculosis pulmonaris. In these cases they may cause a profuse diarrhea which is checked immediately when they are removed. In the literature as far as I searched I found no mention of the occurrence of the megastoma entericum in America and the case of Salmon was the only one that can be laid to the megastoma entericum as the cause of the dysentery.

In our case as the clinical history shows, he has as high as 10 stools. Sometimes with blood and mucus and often without. In his stools I have not found any other parasites except the megastoma entericum. I found no ameba, although as Musgrave has shown us there may be and show no dysenteric symptoms, and we may have some abscesses of the liver without dysentery. Some of his stools are quite bloody especially after a purge and contain a good quantity of mucus. Esinophiles are present in

the stools in large numbers. The megastoma were of all forms, the flagellates, encysted and young. They stain beautifully with Wright's, the body strong dark blue, the peristome light blue, the nuclei bright red and the flagella reddish blue. In some, especially the larger one, I thought I could see the splitting of the chromatin of the nuclei on each side. Then these fine granules extending toward the tail on either side, the center of the organisms becoming quite dark blue and the outer sides lighter. These little granules collected in small groups and finally little spots like the presigmentation bodies in malarial hematozoon.

I can not and do not make this as a final statement as my time and observations were very limited. But they reminded me much of Craig's description of the same process in the ameba dysenteria.

On November 18th an examination of the rectum as high as the sigmoid flecture was made by Dr. Rigdon with aid of a proctoscope and light carrier. This examination showed absolutely no lesions of any nature although the mucous membrane in places looked very hyperemic and in places a little blood escaped. The man's present condition is much the same as two weeks ago. We shall try treatment again and then rest as in this time and record the increase in symptoms and number of megastoma.

DISCUSSION.

Dr. Blumer: I have seen one or two cases of this infection in Baltimore and we took a view then that is now generally accepted that the parasite is quite a common one in the intestine and is not that cause of the intestinal symptoms. I do not feel quite justified in taking that view now, especially when we consider that changes have taken place in our ideas in connection with other parasites that were supposed to be harmless. The Balintidium coli has been shown by Strong almost certainly to produce intestinal lesions. They could be found deep in the mucous membrane of the intestines. It seems to me that it will be necessary to have autopsies on some of these cases to decide whether the parasite is directly concerned with the histological lesions. The zoologists describe the parasite as simply becoming adherent to the epithelial cells. That is not a reason why they should not produce a lesion. Mechanical irritation might be sufficient. One should be very careful to exclude all other causes of dysentery in a case like this. It is quite possible too that this parasite may aggravate a dysentery which has been started by something else. I do not see how the matter can be cleared up until we have autopsies on some of the cases.

Those encysted forms that Dr. Oliver describes are pictured in Braun's work on Animal Parasites. There is a statement made that Schaudin has described a complicated form of division in the parasite.

Dr. Gunn, discussing the paper read by Dr. Oliver: I agree with what Dr. Blumer has said. I think, as far as we know, the megastoma entericum, or the lamblia duodenalis as classified by Stiles, is not pathogenic. Various flagellate infusoria, some of them exceedingly common, are observed in the intestinal tract, usually when there is present an inflammatory condition. But that they are capable of producing any lesions there is no proof and there is much to show that they are not pathogenic, such as animal experimentation, etc. The parasite described by Dr. Oliver has been found in the stomach in six or seven cases according to Nichol.

Dr. Schmoll reporting two cases of abdominal aneurysm:

The first case which I wanted to present this evening was a case of the aneurysm of the abdominal aorta. The man is 73 years of age. Noticed about 7 years ago that a pulsating tumor was growing in his abdomen causing him a great deal of pain. This tumor kept on growing for about 2 or 3 years after which time it ceased to increase in volume. About 6 months ago a physician made an exploratory laparotomy and finding an aneurysm he closed up without any further surgical interference. If you examine the patient you will find a tumor about the size of a child's head in the umbilical region. This tumor reaches below to about the promintorium where you can feel the pulsating aorta branching into the two iliac arteries. Above one can go in between the upper part of the tumor and costal margin. The tumor is quite hard and pulsating. Its nature is proven by the fact that it pulsates not only in saggital direction but also expands laterally. The lateral expansion is very little compared to the antero pulsation proving that there is a large amount of pulsating within the aneurysm, a fact which explains the stationary character of the tumor. Besides the double sciatica caused by the aneurysm the patient complains of pain in his chest. At first I thought the pain radiated from the abdominal aneurysm but lately he has shown new symptoms which makes me think that he has also an aneurysm of the descending aorta. Within the last 3 weeks he complains that the food sticks at a height corresponding about to the 4th dorsal vertebrae, that he can only swallow after some efforts. On examination the patient shows a tenderness over the 4th, 5th and 6th dorsal vertebrae on percussion. I thought that I could sometimes see pulsations there but am not sure. On auscultation there is nothing to be heard but on percussion there is a distinct dullness. The difficulty in swallowing, tenderness of the spine, intercostal neuralgia of frontal region, seemed to me to be very suspicious of the presence of aneurysm of the descending aorta.

The second case is a case of aneurysm of the ascending aorta. The man is 53 years old and has been complaining for the last 6 years of asthmatic attacks. When I first looked at the patient I was impressed by the fact that his right jugular veiu was full and did not empty on deep inspiration. It was not pulsating. This can only be explained by the intra-thoracic tumor pressing upon the vena cava superior which in most of the cases is an aneurysm. I therefore looked for a normal pulsation of the chest wall aud soon detected a pulsation at the third intercostal space about 4 c. m. to the right of the right sternal border. One could feel a very marked diastolic shock extending as far as the pulsation. The combination of the pulse in the normal pulse with that marked diastolic shock and booming low pitched second aortic as we hear over this chest assures the diagnosis of aneurysm. A tumor to which pulsation would be only communicated and not present diastolic shock and would not give this low pitched characteristic second aortic sound. The diagnosis was confirmed by an X-ray which showed the aneurysm on the descending aorta.

It happened that a few days after this case I saw a second case of aneurysm of the ascending arch of the aorta which was even smaller than the one in this case. The symptoms presented were a general diffuse pulsation of the whole chest wall. Very marked tug of the trachea and a general pulsation and the whole head pulsating synchronous with the radial pulse. There was a marked difference between the two radial pulses, the left being much smaller than the right and the characteristic low pitched second aortic. The X-ray of this case showed also an aneurysm of the ascending arch and a second aneurysm of the descending arch which clinically did not cause any symptoms.

DISCUSSION.

Dr. Cheney: One of the most interesting points with these cases is the frequency of aneurysm in San Francisco. Whether it is true that aneurysm is seen more often than in the East I would like to know from those who have had experience there.

Dr. Blumer: As far as New York is concerned, I will say that aneurysm is more frequent here than

in Central New York. I do not think, however, that it is more frequent here than in Baltimore where I saw a great many cases, especially among the colored people. I suppose that is due to the fact that such a large proportion of them have had syphilis at one time or another, perhaps also because Baltimore is a seaport and so many sailors have the same disease.

Dr. Lehmann explained the features of the demonstrated diapositives which both show the aneurysm of the ascending aorta very much smaller than it really is; in both cases it extends more in frontal direction than in sagittal, as shown by the screen examination which was made in all directions. Illuminating the chest not only in dorso-ventral and ventre-dorsal direction, but from one side to the other. The pressure upon the vena cava in the first case is demonstrated by the marked shadow, which is denser and larger than usually found.

Dr. Schmoll, closing discussion on his case: The frequency of aneurysm in this country is certainly very much greater than the occurrence in Europe. I have seen in this short time that I am in America, more cases than I have seen in Europe. I think there is no great difference between the occurrence of aneurysm here and Baltimore and I think in both cities the frequency of the occurrence is about the same. Regarding the treatment of these cases I usually give potassium iodid in considerable doses and gelatine in injections as advocated by Lancereaux in Paris, who had the kindness to show me about 10 to 15 cases treated by this method. I was very much impressed by the clotting which occurred in aneurysm which had perforated the chest wall. The danger of gelatine treatment is that tetanus occurs quite frequently if the gelatine is not properly sterilized. I believe that Merk puts a gelatine on the market which is absolutely sterile and can be injected without trouble. I saw 2 or 3 cases of disappearance of pulsation on the chest wall and an aneurysm which had been rapidly increased before, became stationary while the pain disappeared entirely. For the pain in aneurysm I often advocate veni section which often lessens the pain to quite a considerable degree. It often helps one to hold back with morphine.

PUBLICATION.

The Principles and Practice of Medicine.—By William Osler, M. D. Designed for the use of practitioners and students of medicine. D. Appleton & Co., New York.

It is a pleasure to read for review a book which one can cordially recommend. Such a work is the new edition of Osler's Practice of Medicine. It is written in short terse sentences and contains in a comparatively small bulk a wealth of historical, pathological, and clinical detail. Further, when descriptions of rare conditions are necessarily brief, the most valuable reference is repeatedly given. It has been brought well up to date and contains an account of Para-typhoid fever and the newer tropical diseases. Splenic enlargement is dealt with from the most recent standpoint. Chronic polycythemia with cyanosis and enlarged spleen is separately described, and looked upon as a clinical entity. Joint diseases are satisfactorily classified as far as our present knowledge will allow. Gaskell's Engleman's, Mackenzie's and Wencheloch's studies have been incorporated under Cardiac Arrhythemia, and this and allied subjects made very interesting. In the section on nervous diseases Sherrington's and Grienbaum's work on the higher apes is figured in the representation of the cortical localization, and the schematic diagrams of the segmental skin fields impress one with their accuracy. The sections devoted to treatment are extremely brief and perhaps reflect the therapeutic pessimism of the distinguished author.

COMMUNICATIONS.

Extravagant Claims for Hyoscine in the Treatment of Drug Addictions.

To the Editor of the State Journal: Quite a number of articles have appeared in medical literature during the last few years advocating the use of hyoscine in the treatment of the morphine and other drug addictions. Some of these have advised its use in such large and frequently repeated doses as to make one familiar with the effects of this drug shudder to think of the distressing condition the patient must be brought into by such excessive use of so powerful an agent.

Some of these writers have made the most extravagant claims for this remedy, some claiming it to be an antidote for morphine, others that its use in combination with morphine prevents the formation of an addiction, others that it is a specific cure for the morphine addiction, and that by its use the worst cases may be cured within a few days' time.

An article appeared in the July number of your Journal by Dr. Bering, of Tulare, that may be cited as an example. He gives the clinical notes of four cases, the third and fourth of which are as follows:

Case 3. Morphine habitue, using 20 gr. morphine and 20 gr. cocain daily for a period of years, was given 65 one-hundredth grain doses of hyoscine during a period of two and a half days. He was discharged cured, having no desire for either drug. Pulse remained good during treatment.

Case 4. Patient using a large quantity of morphine and cocain daily, was treated for three days and discharged cured.

When one reads such statements as these in first-class medical journals it makes him wonder whether the days of the miraculous cure of disease have really returned. In the writer's experience the cure of the morphine addiction in a few days' time is like "Learning German in ten lessons." Patients who are given such a course of treatment and discharged *cured* at the end of a few days' time find that they have about as much to contend with after their *cure* as before it, just as the would-be German scholar finds that after his ten lessons he has very much more to learn than he thought he had at the beginning. It is evident that the word "cure," as used by some of these gentlemen, does not mean what it is ordinarily understood to mean. There is much more involved in the cure of a case of morphinism than can be done in a few days' time with any course of treatment, however perfect it may be. In addition to the drug intoxication from which the patient is suffering, the system is surcharged with poisons, both of excrementitious and autotoxic origin. The functional activity of all the excretory, secretory and digestive organs are impaired. The blood changes are marked, the red corpuscles greatly diminished, the white correspondingly increased, patient profoundly anemic, muscles flabby and relaxed, nervous system deranged to a marked degree, mental activity impaired. In fact, the patient is greatly below par in every respect.

We are free to confess that we are old-fashioned enough to believe that in the treatment of this or any other disease it is still necessary to conform to well-established physiological laws, rather than depend upon some miraculous agency to transform our patient from disease to health; therefore, we do not believe that these markedly deranged conditions can be corrected in a few days' time to such a degree as to justify the patient's being discharged as cured.

The administration of sixty-five 1-100 gr. doses of hyoscine in two and one-half days—a little over 1-100 gr. every hour—is excessive medication, and would be dangerous in many cases. I do not wish to be understood as condemning the use of hyoscine in the treatment of these addictions, because it is a remedy of great value, but it has its limitations as well as its uses. It does not cure the morphine addiction, as is

claimed by some who advocate its use with the rashness of a new convert, but it does fill one of the most important indications in the treatment of such cases. When properly used, after the patient is prepared for it, it serves to carry him in comfort over a period during which he would otherwise suffer intensely. If the withdrawal of the opiate was all that is involved in the cure of these addictions, hyoscine might be regarded as a cure for them, but that is not all. The physician deceives himself if he thinks that merely because the opiate has been withdrawn by the aid of hyoscine and the patient has reached a stage where the administration of either drug is not longer imperative, that he is cured. He is still very weak, anemic and nervous, his system is still in a toxic condition, less so than at the beginning, but still sufficiently so to cause an elevation of temperature of from one to three degrees, attended by aching of the limbs and back, exaggerated nervous reflexes and various other unpleasant symptoms, and, unless he has had something more than hyoscine given him to cure his addiction, he will soon have a diarrhea that will tax his endurance to the limit if it does not force a return to the use of the opiate.

There are several institutions in this country that depend upon hyoscine to cure their patients. These make the most wonderful claims for hyoscine, or rather for their particular combination, which, in fact, is nothing more nor less than hyoscine. They regard the withdrawal of the opiate as all that is involved in the treatment of these addictions, and insist upon discharging their patients within eight days from the beginning of treatment. In almost every instance such a patient finds that he has so many complications to contend with and is so poorly prepared to make such a fight that he soon gives up in despair and returns to the use of the opiate. · Many cases have come under my care with such a history.

In the very best hands all that can be done for a patient of this class during the first week of treatment is to clear the system of retained excrement and thus remove the source of autointoxication, partially cleanse the system of ptomains and other poisons of auto-origin, withdraw the opiate and bring the patient to a condition where its use is no longer a necessity, but when this is done the patient is not cured; he has only reached a point where convalescence may set in. Such a patient needs medical supervision, discipline and moral support as badly during the period of convalescence as he needed active treatment before that stage was reached. Fortunately, such patients convalesce rapidly, they eat heartily, digest and assimilate a large quantity of food and take on flesh rapidly. If a wise supervision is exercised over them and they are required to carry out a physiological course of physical training, so as to develop all the newly acquired flesh into stout muscular fibre and tone up what they already have, in many instances convalescence may be advanced to a wonderful degree within the first thirty days. In thirty days more such a patient should be as stout as he ever was. When such a physical condition has been reached, with a corresponding improvement in the mental condition and the patient has been off of his drug and all substitutes for it for a period of thirty to sixty days, he may be discharged as cured; but I do not think the word "cure" should be used to mean less than that.

Some physicians who treat these cases by the reduction method insist upon a period of treatment and personal supervision of from six to twelve months. I think such a protracted course of treatment is as much an extreme in the other direction as the few days' term is with those we have above considered. In the cure of these addictions it is not only necessary to take the patient off of the drug and put him in good physical condition, but, if he is to be permanently cured he must be made independent of all drugs. During such a prolonged course of treatment, supervision and at least partial restraint, the patient does not develop independence or self reliance, but continues to depend upon his physician and upon the remedies he is taking. His volition is restricted and his own will is not the controlling force from which his conduct springs. In fact, a protracted course of treatment, supervision and restraint, in patients of this class, who are already abject slaves to a drug, tends to perpetuate a condition of invalidism and dependence from which the patient seems powerless to extricate himself after being discharged.

In my experience, patients of this class who have been taken off of their drug by a proper method and have been developed into good physical condition as rapidly as it may be done, are in safer condition to be thrown on their own resources by the end of six to eight weeks after the drug is withdrawn than they are if kept under treatment and restraint longer. At this period time has not materially obliterated the memory of their former abject slavery; they are supremely happy in the realization of their freedom, in contemplating the desirable things that life may have in store for them since they have another opportunity to enter upon their acquisition. They are full of hope, buoyancy and ambition. The world and all that is in it presents to them a new and bright aspect. At this floodtide of hopefulness, buoyancy and new life they are in better condition to be thrown on their own resources and to establish themselves in a safe relationship to all things that might tempt them, than they are if kept under restrictions until this tide begins to ebb.

To those who are seeking the truth in this matter I would say, do not accept the miraculous claims of the three-day cure men on the one hand, neither swing to the standard of those who insist upon a period of from six to twelve months' treatment and restraint. There is a middle ground, a reasonable position, where the truth may be found. Remember that miracles are not to be expected and that restraint does not develop independence and self reliance, upon which the patient must finally depend, and without which man is mere driftwood.

GEO. E. PETTEY, M. D.

Memphis, Tenn.

Our Position.

We call attention to a letter* from Dr. Simmons, general secretary of the American Medical Association, printed in our correspondence column.

No one who has read the editorial columns of this paper can doubt our attitude on these important questions.

Medical journalism in this country has been and still is tainted with the all-pervading spirit of commercialism, which the enormous increase in wealth and the great strides in the development of our country have engendered. It is a phase of our National development. So far as medical journalism is concerned, its present evil course in the matter of advertisements is largely due to the fact that the pace has been set by privately owned and privately conducted journals, which have been founded and are controlled by the great publishing houses, pri-

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* *To the Editor, Journal of Medical Society of New Jersey:*

My Dear Doctor:—I find that I failed to officially call your attention to a resolution which was unanimously adopted at the last meeting of the House of Delegates of the American Medical Association. The resolution referred to, was introduced by Dr. E. Eliot Harris, of New York City, and is as follows:

"*Resolved*, That the committees on publication of the journals of medicine, published by the State medical associations affiliated with this body, be asked to assist the Board of Trustees in their efforts to suppress the advertisement of medical nostrums and to co-operate in the work of securing pure food and pure drug laws in the United States."

Respectfully yours,

GEORGE H. SIMMONS,

General Secretary.

marily to make money for their owners and to advertise their publications. They have made the real interests of the profession and the true welfare of the sick and feeble secondary to private ends.

It is perhaps not surprising that the State journals have endeavored to lighten the expenses of publication by accepting advertisements of proprietary medicines, the formulæ of which are not specified and the effects of which may be injurious or questionable, and have not felt strong enough to refuse this ready and easy means of adding to their incomes.

Now in great part through the fearless and unselfish course of the editor and publication committee of the California State Journal, a better day is dawning. The trustees and the editor of the great *Journal of the American Medical Association* have adopted, after mature deliberation, a perfectly fair method of dealing with this question.

This movement, as well as the efforts to secure legislation ensuring the purity of all foods and drugs, should receive the sincere and unremitting support of every member of the medical profession.

WILLIAM J. CHANDLER,
DAVID C. ENGLISH,
CHARLES J. KIPP,
Publication Committee.

RICHARD COLE NEWTON, Editor.

—*Journal of the Med. Soc. of New Jersey*, Nov., 1905.

The International Congress for Tuberculosis.

The Congress, from the standpoint of attendance, seems to have been, from the reports which reach the Journal, a very decided success. The leading nations of the world were all represented by delegates and members, of course the preponderating influence was French, and there has been some complaint on the score that practically all of the papers read were in the French language, and that but little time or attention was given to those who did not present their opinions in this tongue.

It will be difficult to determine exactly the value of the various papers presented, until they have been published and can be carefully read and considered. Undoubtedly, one very valuable phase of the Congress was the bringing together into personal contact the foremost medical men in the various countries of the world, who are devoting their time and their attention to careful study of the various problems presented by tuberculosis.

The next Congress to be held in 1908, we are glad to learn, will meet in the United States.

It is a little difficult to determine exactly what attitude should be held toward the announcement by von Behring. In some quarters, notably in England, one hears little except rumors of unmitigated condemnation; first, because he did not fully describe his suggested remedy, and second, because it is intimated that he expects to make a feature of the commercial side of it. On the other hand, the criticisms from the French and German laboratories are quite the reverse, they regard von Behring as an exceedingly careful and honest worker, and in some quarters, they consider it rather a desirable thing that he advocates the propriety of making some money out of whatever he may be able to perfect. At the time of the Congress, he stated that he had made decided advances, but that he was not prepared to make a full and final announcement until others had gone over his work and had confirmed his findings. It is reported on good authority that von Behring was not at all responsible for the sensational announcements made in the Paris papers at the time of the Congress.

Please send notice of change of address promptly to the office, Y. M. C. A. Building, San Francisco.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Abbott, Geo. K., from Glendale to Loma Linda Sanitorium, Loma Linda, Cal. **Akerly, James C. S.,** from 14 San Pablo ave. to 1155 Broadway, Oakland. Hrs. 1:30-3:30 and 7-8. **Armstrong, Maurice M.,** from 624 East 5th st. to 402-3 Severance Bldg., Los Angeles.

Berger, Bertha, from add. unk. to Station G, Baltimore, Md. Blumenberg, Samuel P., from 1426 Jones street to 1360 Green street, near Polk, San Francisco. Boyd, Truman O., from add. unk. to Twin Falls, Idaho. Boynton, Chas. E., from add. unk. to Redding, Shasta, Co. Hrs. 9-12, 2-4 and 7-8. Bonynge, Chas. W., from add. unk. to Potomac Blk., Los Angeles. Hrs. 10-12 and 7-8. Bullington, Perry F., from Oroville to Chico. **Bulson, Charles H.,** from Lincoln, Placer County, to 2710 J. st., Sacramento.

Condit, Joseph D., from 380 Elerada Drive to 208-9 St. Louis Blk., Pasadena. Coppedge, W. E., from add. unk. to Alturas, Modoc Co. Hrs. 9-12 and 2-4. Crease, Henry Geo., from Santa Ana to Hopkins Blk., Bakersfield.

Davis, Geo. W., from 406 Sutter st., San Francisco, to Lincoln, Placer Co. **Dowdall, Richard J.,** from Crescent City, Del Norte Co., to 1050 Noe st., San Francisco. Hrs. 1-2 and 6-7. **Duncan, A. M.,** from add. unk. to Grant Bldg., Los Angeles. Hrs. 11-4.

Ewing, D. A., from St. Luke's Hospital to Y. M. C. A. Bldg., San Francisco. Hrs. 10-2.

Hardman, C. W., from add. unk. to Laton, Fresno Co. Harris, B. Y., from Grant Bldg. to Rms. 3-4-5 and 6, 453 Kearny st., San Francisco. Hrs. 9-12 and 7-8. **Hassler, Wm. C.,** from 528 Sutter street to 293 Geary st., San Francisco. Hawkins, Orwin C., from Oroville to Biggs, Butte Co. **Hedgpeth, William Rufus** from Santa Cruz to Paso Robles. **Hicks, William T.,** from New Idria, San Benito Co., to 101½ Grant ave., San Francisco. Hrs. 9-12, 3-5 and 7-8. **Hull, Philo,** from Chico, Butte Co., to McArthur, Shasta Co.

Keegan, Lawrence T., from add. unk. to Black's Station, Yolo Co. **Kuhlman, Charles G.,** from 936 Van Ness ave. to 293 Geary st., San Francisco.

Leland, Thos. B. W., from 246 Sutter st. to 293 Geary st., San Francisco.

Magnus, Max E., Donohue Bldg., San Francisco, change from Coll. of Phys. & Surg., San Francisco, to Coll. of Phys. & Surg., Chicago, Ill.

MacMonagle, Beverley, from 590 Sutter st. to 293 Geary st., San Francisco. **Mayon, Chas. L.,** from Central Bank Bldg., Oakland, to 541 York st., Vallejo, Solano Co. **McDermot, W. P.,** from 210 San Jose ave. to 25th and Mission sts., San Francisco. **McNaughton, J. A.,** from Eureka, Humboldt Co., to Halfmoon Bay, San Mateo Co. **Miller, T. W.,** from 213 Conservative Life Bldg. to 426 H. W. Hellman Bldg., Los Angeles. Moore, Albert Wm., from add. unk. to 540 Wilcox Bldg., Los Angeles. Hrs. 11-12 and 2-4.

Parsegan, J. H., from Patterson Bldg., Fresno, to 508 Sutter st., San Francisco. Hrs. 10-12 and 2-5. **Pitcher, Josephine,** from Children's Hospital, San Francisco, to Halfmoon Bay, San Mateo Co. **Porter, Langley,** from 803 Sutter st. to 614 Taylor st., San Francisco. Hrs. 1-3 and 7:30. **Preston, R. W.,** from 2306 Pine st. to 430 Duboce ave., corner Fillmore, San Francisco. **Pryor, F. O.,** from Scotia, Humboldt Co., to Fulton, Sonoma Co.

Rendon, Victor A., from 126 W. 3d st. to 1021 W. 17th st., Los Angeles.

Siebe, Elizabeth, from 643 Sutter st., to 406 Central ave., San Francisco. Smith, Thos. O., from add. unk. to 502A Valencia st., San Francisco. Spiro, Harry, from add. unk. to 1325 Octavia st., San Francisco. Sumner, Percy, from 1264 Jackson st. to Pavia Bldg., 643 Sutter st., San Francisco. Hrs. 1-4.

Tallmon, Susan B., from add. unk. to 1900 Louisa st., Berkeley.

Woolsey, Chester Howard, from 246 Sutter st. to 293 Geary st., San Francisco.

Zelinsky, Frank, from 671 Carondelet st., Los Angeles, to Glendale, Los Angeles Co.

New Names.

Claypole, Edith J., 217 S. Broadway, Los Angeles, Univ. Southern Cal., '04. (C) '05. Hrs. 11-4.

Richardson, W. W., Bradbury Bldg., Los Angeles. Northwestern Univ. Med. School, Ill., '90. (C) '05. Hrs. 11-12:30 and 3-5.

Turnbull, Walter (H), 3168 Washington st., San Francisco. Hahn. Med. Coll. of Pacific, '04. (C) '04.

Van Valkenburgh, Charles C., 1125 T st., Fresno. Med. Coll. Univ. Mich., '78. (C) '81. (Retired.)

Wiley, E. H., Bradbury Bldg., Los Angeles. Northwestern Univ. Med. School, Ill., '01. (C) '05. Hrs. 9:30-11 and 1-3.

Williams, Chas. C., 401 S. Hope st., Los Angeles. Med. Dept. Harvard, Mass., '86. (C) '99.

New Members.

Fresno County—Fleming, Luther P., Gilreath, M. A., Hardman, C. W., Rosson, John B., Van Valkenburgh, Charles C., Weddle, Charles.

Los Angeles—Barton, Herbert P., Davis, Theo. G., Duncan, A. M., Gill, Henry Z., Richardson, W. W., Wiley, E. H., Williams, C. C. Pasadena Branch—Bleecker, J. T. Van Slyck, David B.

San Bernardino County—Power, W. B.

San Joaquin County—Olivieri, Leonida, Surryhne Benjamin F.

Shasta County—White, Sherman T.

Solano County—Arnold, C. E., Bransford, Samuel G., Hall, Lester Parker, Koltz, Bernard J., Makemson, W. S., McFarland, W. L., Miller, Harry O., Caldwell, E. J.

Yolo County—Curtis, Elliott D., Foster, E. C., Keegan, L. T., Prose, T. W.

Died.

Laidlaw, Horace, San Francisco.
Nichols, Geo. B., San Luis Obispo.
Nicholson, I. E., Oakland.
Watkins, Antionette.

NOSTRUMS ARE BEGINNING TO GET THEIR DUE.

The *Journal of the American Medical Association*, after thinking the matter over a long time, has finally decided to come out flatfooted on the side of respectability in the ranks of the profession. This official organ of the American Medical Association is setting a pace in the matter of exposing the humbuggery of those nostrum makers who pretend to be ethical and to appeal to physicians only, which medical journals conducted as commercial enterprises dare not attempt to follow And the *Journal* is throwing consternation into the ranks of nostrum manufacturers and publishing houses by calling a spade a spade, in a manner which causes much merriment to the onlookers and gives pleasure to those who have labored a life time to present quackery in its true light. One of the most encouraging signs of the times is the fact that the National Association of Retail Druggists at its recent Boston meeting by a special resolution endorsed the action of the American Medical Association in its "work of eliminating from the practice of pharmacy and medicine, as far as practicable, unethical, secret, and in some cases fraudulent and dangerous compounds." With the United States government and the State excise authorities taxing as liquors those nostrums which but for the alcohol in them would be practically without value; with the *Ladies' Home Journal, Collier's Weekly, Leslie's Monthly Magazine* and some of the other lay publications appealing directly to the intelligence of the public; with the CALIFORNIA STATE JOURNAL OF MEDICINE are the *Journal of the American Medical Association* showing the physicians a few things which it is worth their while to notice; and with *The Druggists' Circular*, encouraged by the enthusiasm of the new journalistic converts to redouble the efforts which it has been making for an enlightened practice of pharmacy for nearly half a century, we can repeat in conclusion what we said in the beginning, nostrums are beginning to get their due.—*The Druggists' Circular and Chemical Gazette*, Nov., 1905.

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the liberal use of the odorless solution of metallic chlorides, commercially known as "Platt's Chlorides," is recommended for disinfecting the discharges, deodorizing and refreshing the air of the sick-room, by the most eminent physicians and sanitarians, among whom are;

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Dr. Benjamin Lee - - Secretary, Pennsylvania State Board of Health
Dr. Thomas Darlington - - - President, New York Board of Health
Dr. Samuel H. Durgin - - - Health Physician, Boston, Mass.
Dr. Heman Spalding - - - Chief Health Inspector, Chicago, Ill.

For disinfecting dejecta, dilute one part chlorides with 4 parts water.
For deodorizing by sprinkling and for moistening towels or cloths to be suspended in the sick-room, dilute one part chlorides with 10 parts water.

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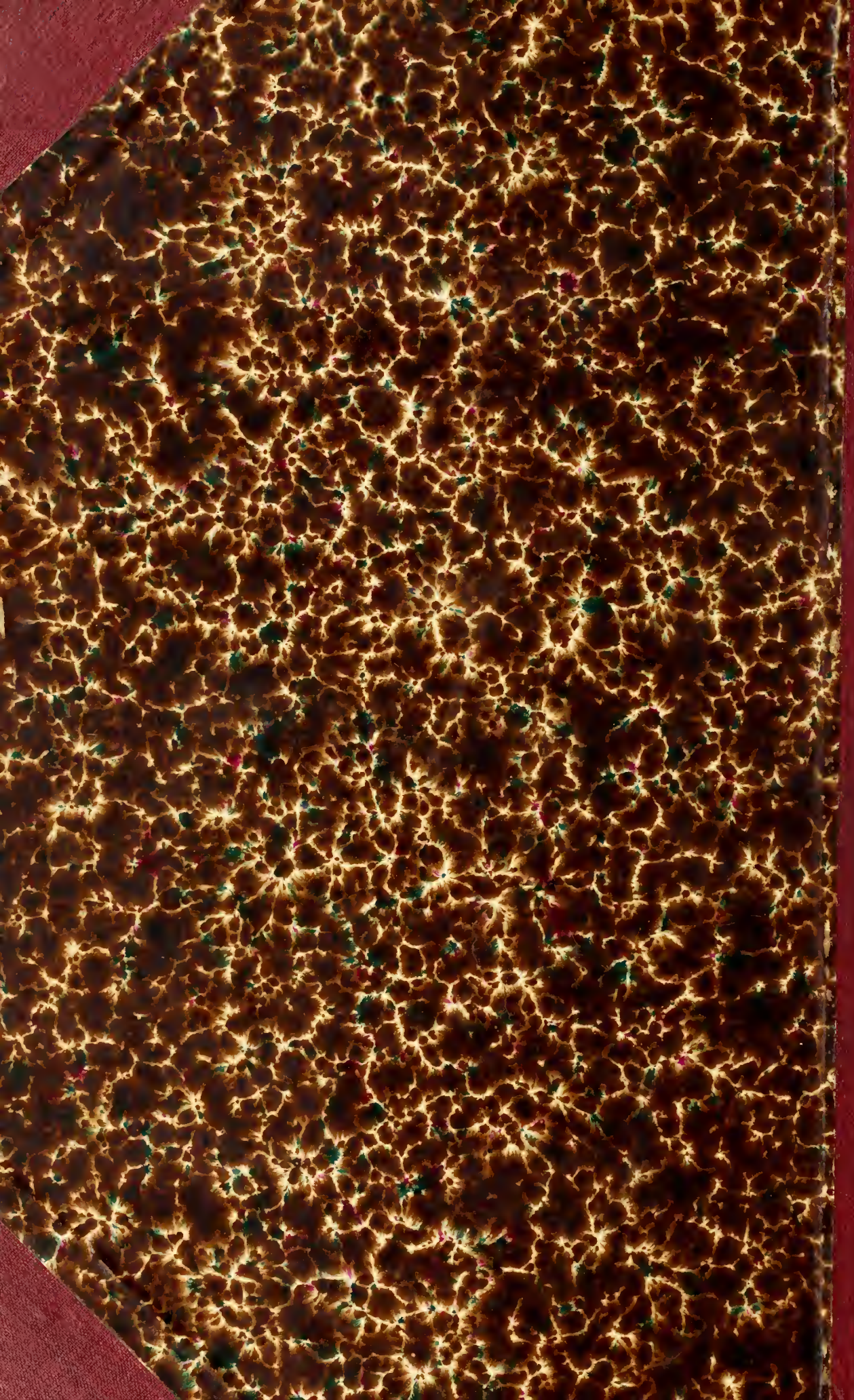
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